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The Journal of Association of Surgeons of Assam (ASA)

Official Journal of Assam Chapter of Association of Surgeons of India (ASI)

Editor : Manoj Saha

A Tribute to

Late Dr. Gyan Chand Jain

Eminent surgeon, social worker and past president of Association of Surgeons of Assam passed away on 5th January 2020 at the age of 84.

The Journal of
Association of Surgeons of Assam
Official Journal of Assam State Chapter of ASI

CONTENTS

Editorial

Covid 19 Pandemic & Surgical Practice

Whole world has come under the rule of one crown (Corona). Its impact is seen in every field of life. Surgical practice is also not spared! Because of the pandemic almost all elective surgeries are postponed. Emergency surgeries are performed with utmost caution. But, his cannot be continued for an indefinite period. Dr. Mike Ryan, the executive director of WHO's health emergency program, warned that this virus may never go away from our communities [1]. If this is the scenario we will have to learn to adjust and live with it. May be we have to add it to the list of Tuberculosis, Malaria and HIV.

Many hospitals are now preparing to adapt with the current situation for continuing elective surgeries. The biggest hurdle is to provide safety to patients and other health personals from Covid 19. Surgical associations of some countries have circulated guidelines, protocols, and checklists in this regard.

Performing elective surgeries during this period is not without hazards. A case series published in Annals of Surgery showed that Covid 19 can complicate perioperative course of an elective surgical patient with high fatality rate [2]. The evidence level is very low as because observation was made only in four patients. Another document from Minerva Urologica with nephrologica, March 2020 advocated rescheduling of surgical and outpatient activities for urological patients during Covid 19 pandemic and its subsequent phase [3]. J.J. Tvech et al considered emergency surgery as a priority in Covid era and suggested deferring of other functional surgeries. They suggested that laparoscopic surgery, if done, should be under strict rules to avoid exposure to health care professionals. Surgery for cancer patients should be decided on basis of benefit of surgery (during pandemic) with the possible risks of deferral [4].

The Stanford guideline states that any patient who is to be operated during this pandemic should be considered as having Covid 19 infection until and unless proved otherwise [5]. The guideline suggests that all operating members should wear full PPE kit at the time of surgery. Only when RT-PCR test of the patient is negative the operative team can opt for standard surgical clothing [5].

American college of surgeons has circulated a post Covid 19 readiness checklist for resuming surgery. The checklist has two parts. One part deal with core facility items like general facility policies, structures, and processes, and outcome reporting. The second part deals with surgery specific checklist items [6]. Royal college of surgeons in Ireland (RCSI) is constantly updating guidelines in this regard. It has published 'A guide to clinical practice' on 9th April 2020 for the new or returning surgeons in this pandemic time [7].

In India few surgical associations are engaging themselves in framing guidelines for resuming surgery during this pandemic. But, till now no well accepted guideline, protocol or checklist is available for the surgeons in practice. Availability of such a guideline, protocol or checklist will be very useful for the surgeons to start their practice at the earliest.

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Original Article

Tackerless Laparoscopic TAPP Repair of Inguinal Hernia: Experience of 20 Patients

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ABSTRACT

Background: Inguinal hernioplasty is one of the most frequently performed procedures in General Surgery. Minor alteration in outcome and resources producea significant overallimpact.Laparoscopic repair with tacker, though technically easy, is expensive and hence unaffordable for majority of patients from lowersocioeconomic strata. Endosuturing is supposedly a better alternative to tacker fixation.

Aim: Replacing tacker by endosuturing to fix the mesh, so as to decrease the cost of surgery and to reduce tacker related complications.

Materials and methods: A prospective, study was conducted among 20 patients undergoing tackerless laparoscopic Trans Abdominal Pre-Peritoneal (TAPP) repair of Inguinal Hernia.Patient demographics, past medical and surgical history, intraoperative, and postoperative events were recorded. Patients were followed-up for 1 year.

Results: There were no major complications. Overall eight (40%) subjects had minor complication like seroma in 6 (30%), surgical emphysema and port site infection in one (5%) patient each, which required minor interventions only. Post-operative pain score revealed a score was 1-2. The mean length of post-operative hospital stay was 1.68 days. No recurrence noted in any of the subjects up to 12 months.

Conclusion: Three-point suture fixation of mesh is an ideal alternative to tacker especially in resource challenged countries.Suture fixation of mesh is technically challenging but adoption of the ergonomic enhancing techniques, it can be overcome with time and practice.

Key words: Tackerless, Laparoscopic TAPP, endosuturing, inguinal hernia

Inguinal hernias are one of the most common conditions referred togeneral surgeons all over the world with over five lakh hernia repairs being performed annually [1]. The lifetime risk for men and women are 27%, 3% respectively [2]. Hernia surgery has gone major evolution from the day of truss to modern day laparoscopic surgery.Evolving through initial procedures of herniotomy and then herniorrhaphy, the modern day concept of tension-free hernioplasty was described by Lichtenstein in 1989 [4]. Finally, laparoscopic hernia repair ushered in a new era in hernia surgery along with its attendant advantages and disadvantages. Yet its major deterrent especially in resource challenged countries is its prohibitive cost arising out of its costly instruments and consumables.This cost factor is considered to be a major obstacle for patients in such countries wishing a laparoscopic hernia surgery. Among the elements contributing to the overall cost,Tacker is an important tool which is used to fix the prosthetic mesh in Trans Abdominal Pre-Peritoneal(TAPP) repair. This is considered as a vital step which prevents migration of the mesh and thus reduces the incidence of hernia recurrence. Though having appreciable advantages over its alternative of endosuturing in terms of ease of application, and drastically saving time, the major deterrent arises out of the high cost of the tacker and its metallic or absorbable set of Tacks.This is especially important for the daily wage earning population who in turn benefits the most out of the great advantage offered by laparoscopy in terms of early return to activity.Minor alteration in technique and resources therefore has appreciable overall impact. One area of

improvement in this regard is replacement of the use of the Tacker by endosuturing, which will also reduce the theoretical risk of increasing pain and nerve injury and bleeding near the area of Cooper's ligament with tacker fixation.

Aims and objectives:

1. To make laparoscopic repair cost effective by eliminating use of Tacker in order to make it affordable for the poorer section of our patient population
2. To evaluate the effectiveness of endosuturing as regards hospital stay, pain and complications
3. Reduce the incidence of post-operative tacker fixation related pain and bleeding.

MATERIALS & METHODS

A prospective, open labelled, hospital based single centred study was conducted among patients undergoing laparoscopic Trans Abdominal Pre-Peritoneal (TAPP) repair of Inguinal Hernia, in a single unit of Department of General Surgery, Gauhati medical college Hospital for a duration of 6 months from January 2018 to June 2018.

Patients excluded were:

- Complicated inguinal hernia.
- Recurrent inguinal hernia.
- Patients not willing for laparoscopic repair.

All the patients were admitted and a detailed history, clinical examination and relevant investigations carried out. After taking proper informed consent patient is taken up for the surgery under general anaesthesia. A dose of prophylactic antibiotic was administered 30 minutes before surgery. Standard laparoscopic steps were carried as for TAPP repair. Then instead of Tacker, endosuturing was used to fix the mesh as well as repair of peritoneum. Standard post-operative care was instituted. The patients were evaluated during the post-operative period for pain by VAS score and complications like seroma, infection and recurrence. They were followed up to 6 months, after 1st week, 4th weeks, 3rd month and 6th month, during which they were evaluated for recurrence of hernia and other complications.

Technique:

- Standard dissection is carried out to prepare the bed for mesh repair.
- Very high peritoneal incision for making flap was avoided which is associated with difficulty in suturing
- 1-0 Polypropylene suture is used for endosuturing as the large size of the needle as well as its stoutness maintains the sharpness and helps in easy penetration through the tough ligamentous tissues in the area.
- The principle of 3-point fixation is used for mesh fixation
  - Fixation begins at upper lateral corner of the mesh with the Transverse abdominis muscle
  - Second point of fixation is at the upper medial corner with the muscle
  - Suturing these two points initially, hold the mesh undisplaced while taking the 3rd suture in the Cooper's ligament
- Finer points that were observed
  - Avoidance of even small vessels while taking bites.
  - Care to avoid injury to Corona mortis while taking bite through Cooper's ligament.
  - Avoidance of Inferior epigastric vessel especially in the upper medial corner.
  - Knot was kept loose enough just to hold the mesh, lest it strangulates the tissues with resultant pain.
- Techniques adopted for ergonomically easy suturing.
  - Reverse suturing i.e. passing the needle from below upwards (Figure 1).
  - Closure of peritoneum was initiated from lateral to medial corner with continuous suture.
  - Using of a suture length of 15 -20cm as longer length makes handling difficult.
  - Continuous traction on the suture after each bite was avoided by taking few bites simultaneously in an interrupted manner and then only to pull the suture to prevent tearing of the peritoneum.

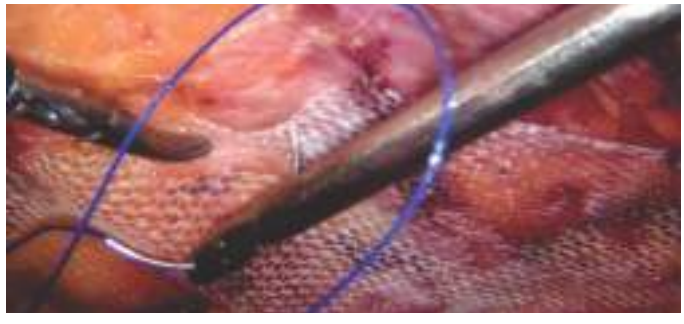

Fig 1. The technique of reverse suturing.

RESULTS

During the study period, 20 patients of inguinal hernia underwent laparoscopic Trans Abdominal Pre-Peritoneal (TAPP) repair. The mean age was 46.67+/-6.83 years (range-21-64 years).Eighteen (80%) of patients were males and 2 (20%) were females. Twelve (60%) subjects had right inguinal hernia with 8 (40%) having direct and 12 (60%) indirect inguinal hernia. Two (10%) subjects had Diabetes Mellitus and 2(10%) hypertension.

There were no major complications. There was no mesh related complications like migration andrejection.Overall eight (40%) subjects had minor complication like seroma in 6 (30%), surgical emphysema and port site infection in one (5%) patient each, which required minor interventions only (Fig.2). Bleeding due to endosuturing was not encountered in any subjects. Post-operative pain score revealed a score of (1-2) indicative of mild pain in all the subjects. The mean length of post-operative hospital stay was 1.68 days. Norecurrence noted in any of the subjectsup to 6 months.

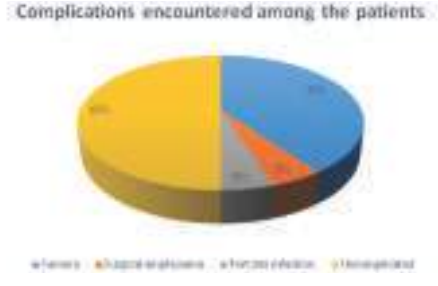

Figure 2: Pie diagram showing the common complications

DISCUSSION

Successful hernia treatment should offer high patient satisfaction, low cost, low recurrence rate, and rapid return to work [7]. The advantages of laparoscopic hernia repair over traditional open repair in terms of limited post-operative pain, shorter hospitalisation, early resumption of activity and improved cosmetics have been readily apparent and accepted. Despite excellent long-term outcome after TAPP repair, the use of laparoscopy in hernia repair is still limited [8].

Major complications like orchiditis, persistent pain/paraesthesia, hemoperitoneum, perforation of bowel, Intestinal occlusion were reported in various studies [20,21,22]. There were no such complications in our study.

Postoperative seroma was found in 30% of patients in comparison to around 13.7% to 14%with other studies [12], [13], this difference is probably because of small sample size.There was no recurrence of this complication after aspiration. Literature suggests that daily heat treatment speed up the absorption of the collected fluid without aspiration [14]. Cihan et al. reported that seromas begin to decrease from the first week after surgery, and about 90% of seromas resolve at the end of the third postoperative month[15].

The incidence of port site infection was similar to other reported series [13]. The success in conservative management was also similar [16].

Post-operative finding of mild pain is in agreement with a 2003 Cochrane database systematic review which demonstrated less persisting pain, and less persisting numbness in the laparoscopic groups [18]. Similarly, another meta-analysis study from the EU Hernia Trialists Collaboration reported decreased post-operative pain with the employment of laparoscopic methods [19].

The hospital stay was less than 2days while in studies conducted by Hamaza Y, et al and Subodh Kumar et al concluded a lesser hospital stay around 1 day was reported [10,11]. The absence of recurrence during the 6 months follow up was similar to other reported series in which even up to a median follow up of 26 months no recurrence was noted [12], [17].

CONCLUSIONS

- Endosuturing over Tacker application does not increase the hospital stay, post-operative pain score and incidence of both major and minor complications.
- Endosuturing by virtue of using suture material which is obviously of significantly lower cost than Tacker, thus reduces the overall cost burden to the patient. This is possibly applicable for procedures using other costly mesh fixing devices like Tissue adhesive glue and Self gripping mesh.
- Three-point suture fixation of mesh is an ideal alternative to tacker especially in resource challenged countries.
- Suture fixation of mesh is technically challenging but adoption of the ergonomic enhancing techniques, it can be overcome with time and practice.
- Extension of this procedure to include recurrent and other complicated hernias remains a possibility.

Compliance with Ethical Standards:

Informed consents were taken from all participants, and the study protocol was approved by Institutional ethical committee approval board.

Conflict of interest:

The authors confirm that there is no conflict of interest regarding this study

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Original Article

A pilot study on the prevalence rate of breast carcinoma in a tertiary care hospital of southern Assam

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ABSTRACT

Aim: Breast cancer is one of the most common cancers and a major cause of death among women worldwide. With rising incidence and awareness, breast cancer is the commonest cancer in the rural Indian women than urban females. This study was aimed to look into the incidence of breast carcinoma among the patients attending the Surgery Department with breast lumps in Silchar Medical College and Hospital.

Materials and Methods: The present study was done for a period of 3 years from 01.12.2014 to 30.11.2017 . A total 455 patients attending the Surgery Department and diagnosed and/or admitted for evaluation of breast lump were taken into consideration.

Results : A total of 328 cases of breast cancer were diagnosed and treated during this period. Infiltrating ductal carcinoma of non specific type was the commonest, reported in 187 cases (57.01%) Other types were infiltrating ductal carcinoma of medullary type, 8 cases of mucinous type , 13 cases of tubular type, 5 cases of ductal carcinoma in situ, 13 cases of lobular type and one case each of Paget's disease of nipple and malignant phylloids tumors. The age of representation was from 22 years to 85 years. The most common age group was 41 - 50 years .

Conclusions: In order to reduce the burden of the disease multisectorial approach and evidence based strategies aiming at early detection and effective management of the disease should be implemented. Public health programs that ensure access to appropriate, affordable diagnostic tests and treatment must be introduced.

Key words: Breast cancer, Ductal carcinoma insitu, Infiltrating ductal carcinoma, Rural

Breast cancer is one of the most common cancers and a major cause of death among women worldwide [1, 2]. The distribution of breast cancer within developing countries shows a higher incidence of breast cancer in urban than in rural areas. India is experiencing epidemiologic progress. It is reported that the incidence of breast cancer is rising quickly in India because of changes in reproductive risk factors, dietary habits and increasing life expectancy [3]. Carcinoma breast is the second most common cancer among Indian women, and an increasing trend in its incidence has been observed in most of the metropolitan with Mumbai topping the list [4]

This study was aimed to look into the incidence of breast carcinoma among the patients attending the Surgery department with breast lumps in Silchar Medical College and Hospital. This tertiary referral Hospital serves not only the population of Assam (including district like Cachar, Hailakandi, Karimganj, Dima Hasao) but also neighbouring states like Manipur, Mizoram, Meghalaya, Tripura.

MATERIALS & METHODS

The present study was done for a period of 3 years from 01.12.2014 to 30.11.2017. A total 455 patients attending the surgical department and diagnosed and/or admitted for evaluation of breast lump were taken into consideration. The archived data about age, sex, type of breast cancer, locality were collected. We analyzed the archived data of the

patients attending the Surgery department of Silchar Medical College and Hospital.

Ethical Approval: This study is approved by the ethical committee SMC/13/3420 dated 11/3/2015

RESULTS

A total of 459 breast lumps were diagnosed and treated during this period. Out of these 459 breast lumps, 328 cases were of breast cancer (Table 1) Infiltrating ductal carcinoma of non specific type was the commonest, reported in 187 cases (57.01%). Other types were infiltrating ductal carcinoma of medullary type, reported in 97 cases (29.57%), 8 cases (2.44%) of mucinous type , 13(3.96%) cases of tubular type, 5 cases (1.52%) of ductal carcinoma in situ, 13 cases (3.96%) of lobular type and one case each of Paget's disease of nipple and malignant Phylloids tumors (Table 2 and Fig 1).

Total study case (N= 475)		
Type of case	**No.**	**Percentage**
Fibroadenoma	**56**	**47.06**
Phyllodd tumor	**24**	**20.17**
Fibrocystic disease	**20**	**16.81**
Duct ectasia	**5**	**4.20**
Duct papilloma	**5**	**4.20**
Breast abcess	**9**	**8.18**
Breast carcinoma	**328**	**69.05**

Table 1: *Distribution of various lesion in the breast*

Type	Sub Type			Cases	Percentage
Lobular	In situ			2	2.44
	Invasive			5	1.52
Ductal	In situ			5	1.52
	Infiltrating	Non specific		187	57.01
		Specific	Medullary	97	29.57
			Mucinous	8	2.44
			Tubular	13	3.96
Others	Paget's disease of nipple			1	0.30
	Mixed lobular & ductal			3	0.91
	Malignant phylloid tumor			1	0.30

Table 2: *Distribution of cases of different types of carcinoma*

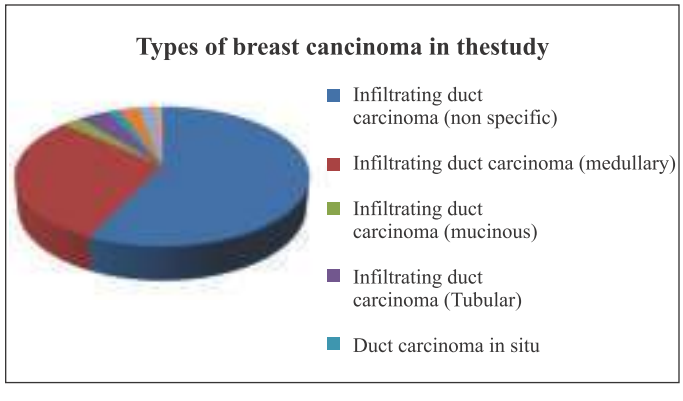

Figure 1: *Incidence of different types of breast carcinoma*

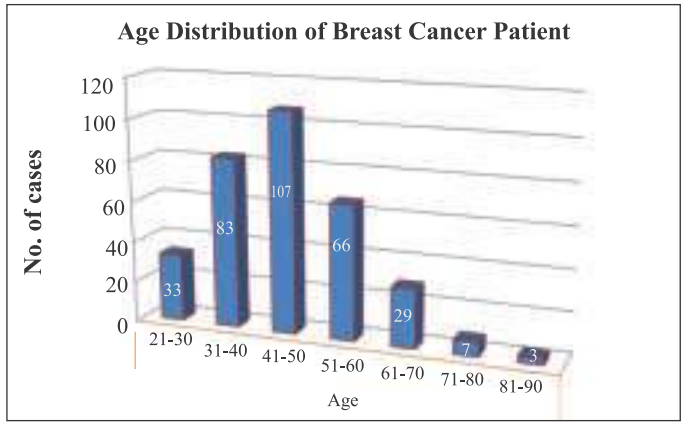

Figure 2: *Age distribution of breast cancer patients*

The age of representation was from 22 years to 85 years. The most common age group was 41 – 50 years with 107 cases (32.62%), then 31 – 40 years with 83 cases (25.30%), followed by 51– 60 years with 66 cases (20.12%), 21- 30 years with 33 cases (10.06%), 61 – 70 years with 29 cases (8.84%), 71- 80 years with 7 cases (2.13%) and there was also two cases of 83 years and only one case of 85 years (Fig 2). In this study the incidence of breast cancer was observed more in rural than in urban area. Out of 328, 287 cases were reported from rural (3 cases of stage I, 211 cases are of stage II, 50 cases of stage III and 23 cases of stage IV) and 41 cases (7 cases of stage I, 13 cases of stage II, 10 cases of stage III and 11 cases of stage IV) were reported from urban areas.

DISCUSSION

The incidence of breast cancer is rising [5]. Breast cancer is the most common cancer of urban Indian women and the second in the rural women after cervical cancer. The incidence of this disease has been consistently increasing and there is a rise in incidence of 0.5-2% per annum has been seen across all regions of India and in all age groups but more so in the younger age groups (< 45 years) [6].

Our study showed that a total of 328 (71.46%) out of 459 cases of breast cancer during the period of three years which is in conformity with evidence that the incidence of breast cancer in developing countries is rapidly on the rise. The reported incidence rates for Breast Cancer from the National Cancer Registry Programme (NCRP) data indicate that percentage of Breast cancer relative to total cases over time in Bangalore and Chennai have increased. (ICMR) [7]. Also, projections of cancer cases in India (2010-2020) of NCRP indicate that there will be more than 100,000 estimated number of Breast Cancer cases annually in India based on the data from NCRP in Bangalore. [8].

Breast cancer attains top rank even in individual registries (Mumbai, Bangalore, Chennai, New Delhi and Dibrugarh) in females during the period of 2012–2014 [4]. Another study reported that Belgium, Denmark, Bahamas and Netherlands have the highest incidence rate of breast cancer [9]. The predominant reason for the increasing incidence of advanced breast cancer reason can be lack of awareness among the patients and/ people about the accessibility of effective screening methods. For this reason, to have early detection and access to care for all patients, it is necessary to reduce the gap in social levels [10].

The common age group was 41 – 50 years with 107 cases (32.62%) followed by 31 – 40 years with 83 cases (25.30%), then 51– 60 years

with 66 cases (20.12%). Based on these data it can can be predicted that women of the middle age group, third to fifth decade (31- 60 years), are at higher risk of developing breast cancer in this geographical area which is similar to the studies done by other author's from India and other Asian countries [11- 14]. Navneet kaur et al [15] reported 71.3% of the cases were in the 35- 54 years. Data from UK cancer registry showed an increasing trend for breast cancer from age 30 to 35 achieving highest peak during age 60–65 years, suggesting that an average woman in India under the age of 40 has a considerably higher chance of developing the disease unlike United Kingdom [16].

Mohammad Adnan reported that women between 41 to 60 years of age were being diagnosed with breast cancer in more number. The average age of breast cancer patients has been reported to be 50-53 years in various population-based studies done in different parts of the country [17]. There is also a report that a significant proportion of Indian breast cancer patients are younger than 35 years of age which varies between 11% [18] to 26% [19]

Presently the knowledge on the causes of breast cancer is limited; therefore, early detection of the disease remains the keystone of breast cancer control. When breast cancer is detected early, and if adequate diagnosis and treatment are available, there is a good chance that breast cancer can be cured.

In this study the most common histopathological type found was infiltrating ductal carcinoma of non specific type. The same histopathological type has also been reported by Narashimhaswamy P et al [20] and many authors across the world [21- 23]. Unlike our study Karla Kerlikowske [24] have reported ductal carcinoma in situ as the commonest type.

Most of the increase of incidence of breast cancer cases in India has been associated with greater urbanization and changing life styles. In our study the prevalence of breast cancer among women attending a tertiary care hospital in southern Assam, the population was predominantly from a rural background. In rural areas, cancer patients are diagnosed at late or advanced stages of disease with a higher proportion (211 cases are of stage II, 50 cases of stage III and 23 cases of stage IV) of them having widespread metastasis suggesting for need of more attention in terms of awareness, treatment and facilities for early diagnosis. There is evidence available to suggest that incidence of breast cancer is same in rural areas as in urban areas [25]. Several studies have investigated the relationship between rurality and cancer. One of the most important findings is that rural residents are generally diagnosed at a later stage and have decreased survival rates as opposed to their urban counterparts [17]

CONCLUSION

India is experiencing an unprecedented rise in the number of breast cancer and is having a lower mean age at presentation compared to what has been reported in the advanced countries of the world. In order to reduce the burden of the disease multisectorial approach and evidence based strategies aiming at early detection and effective management of the disease should be implemented. Public health programs that ensure access to appropriate, affordable diagnostic tests and treatment must be introduced.

There is an utmost requirement to establish the awareness programme in school, rural areas to focus screening method, promotion of early detection of breast cancer.

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Original Article

Diagnostic prospects of Benign Breast Diseases

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ABSTRACT

Introduction: Benign Breast Diseases (BBDs) is the most common cause of breast diseases. Triple assessment is done by ultrasonography (USG), mammography and FNAC or core needle biopsy during the initial consultation and it allows majority of the patients with discrete BBDs to be given immediate reassurance. Materials and methods: A hospital based observational, descriptive study was carried out in 75 cases with benign breast lumps to evaluate the etiological and clinical backgrounds, accuracy of diagnostic investigations and finally result of the treatment modality used. Results: The present study deals with 75 patients with Benign breast diseases, which inclued 67 cases of benign breast lumps and 8 cases of recurrent breast abscesses. Present study depicts, predominant benign breast lump as fibroadenoma occurring in 65.7% of the cases, followed by Fibroadenosis (23.80%), TB breast (4.50%), Ductal papilloma (2.90%), and phyllodes tumour (1.5%). Conclusion: The present study establishes incidences of various benign breast diseases and its diagnosis in relation to different diagnostic tests as FNAC, Histopathology, Ultrasonography and Mammography.

Keywords: Breast diseases, Triple assessment, ultrasonography (USG), mammography, FNAC

Benign Breast Diseases (BBDs) is the most common cause of breast diseases. It is 10 times more frequent than the malignant ones1-3. Upto 30% of the women who suffer from BBDs will require treatment at some time in their lives4. Triple assessment is done by ultrasonography (USG), mammography and FNAC or core needle biopsy during the initial consultation, allows a majority of the patients with discrete BBDs to be given immediate reassurance.5,6Making an early diagnosis and planning the treatment within 72 hours of the first consultation helps in alleviating unnecessary anxiety about breast cancer and those patients of BBDs with an increased risk of malignancy like atypical hyperplasia,7 are given a prompt treatment, a proper follow-up and awareness regarding the risk of breast cancer. 8

The popular classification of BBDs according to the Aberration of the Normal Development and Involution (ANDI) causes confusion due to a lack of clarity in distinguishing normal physiological changes and the pathologic ones. One of the more satisfying classifications would be the one which was devised by Love S et al, 9 the so - called Nashville classification. According to this, BBDs is classified by 2 systems. Pathologically, BBDs is divided into (a) non-proliferative lesions, (b) proliferative lesions without atypia and© atypical proliferative lesions. Clinically, BBDs is classified as (a) Physiologic swelling and tenderness, (b) Nodularity (c) Breast pain, (d) Palpable lumps, (e) Nipple discharge and (f) Infections or inflammation.10

Objectives of this study are to diagnose various BBDs clinically and evaluate them by

ultrasonography and establish the final diagnosis by FNAC/ core biopsy.

MATERIALS & METHODS

The present study was conducted in Department of Surgery, Gauhati Medical College & Hospital, Guwahati during the period of 1st July 2017 to 30th June 2018. Seventy-five cases of benign breast lumps were studied on the basis of etiological and clinical backgrounds, accuracy of diagnostic investigations and finally treatment modality used.

During this study patients with benign breast diseases were evaluated and only those lumps which on examination appeared benign and whose imaging studies and FNAC results were benign have been included.

Evaluations of the cases were done by, a) Clinical breast examination. The breasts are assessed for nodularity and presence of any dominant mass or thickening. The next step was to palpate the regional lymph nodes. These include the supraclavicular, infraclavicular and axillary nodes; b) Fine needle aspiration cytology (FNAC): Harris Alum – Haematoxylin, Orange G 6 and EA 36 solutions for staining; c) Ziehl Neelsen staining: To stain mycobacterium tuberculosis and mycobacterium leprae; d) Ultrasonography : Benign breast tumours usually show smooth contours; round or oval shapes, with weak internal echoes and well defined anterior and posterior margins. Cysts on ultrasound examination, are always well circumscribed, with smooth margins and have an echo free centre irrespective of the sensitivity settings. e) Mammography: Diagnostic mammography is performed when there is a breast abnormality on clinical examination or screening mammography. Calcifications can also be assessed by it as micro-calcifications and macro-calcifications, mass or cyst is another important change seen on mammograms (non cancerous, fluid filled sacs, fibro adenomas).Biopsy should follow abnormal results of mammography.

The final interpretation is categorized according to the BIRADS (Breast Imaging Reporting and Data System) and reflects the likelihood of malignancy (Table 1).

Category	Definition
0	Incomplete assessment, need additional imaging evaluation
1	Negative, routine mammogram in 1 year recommended
2	Benign finding, routine mammogram in 1 year recommended
3	Probably benign finding, short term follow up suggested
4	Suspicious abnormality
5	Highly suggestive of malignancy

Table 1: *Mammography grading*

f) Wide Bore Needle Biopsy and histo pathological examination:

RESULTS

Out of total 67 cases with a palpable lump 44 (65.7%) were fibroadenoma, followed by fibro adenosis(23.8%), TB breast(4.5%), Ductal papilloma(2.9%) , duct ectasia(1.5%) and phyllodes(1.5%) are depicted in Table 2

Table 2: Shows the incidence of benign breast lump

Type	No. of cases	Percentage
Fibroadenoma	44	65.7%
Fibro adenosis	16	23.8%
TB breast	3	4.5%
Duct papilloma	2	2.9%
Phyllodes tumour	1	1.5%
Duct ectasia	1	1.5%

Age related incidences of different benign breast lumps are shown in Table 3. Benign breast diseases is maximum between 21-30 years (37.3%) followed by 31- 40 years (28.3%), <20 years (17.9%), 41-50 years (12%) and >50 years (4.5%). Mean age in the present study was 30.7(27.8-33.6) years.

Table 3: shows the age distribution of benign breast lumps

Age (years)	Fibroadenoma	Fibroadenosis	TB of the breast	Ductal papilloma	Phyllodes tumour	Duct ectasia
<20	12	0	0	0	0	0
21-30	18	6	1	0	0	0
31-40	10	8	0	1	0	0
41-50	4	2	0	1	0	1
>50	0	0	2	0	1	0

Clinical presentations of the benign breast lumps were: lump alone (73%), lump with pain(19.4%), lump with nipple discharge(4.5%) and lump with sinus tract(3.1%) is shown in Figure 1

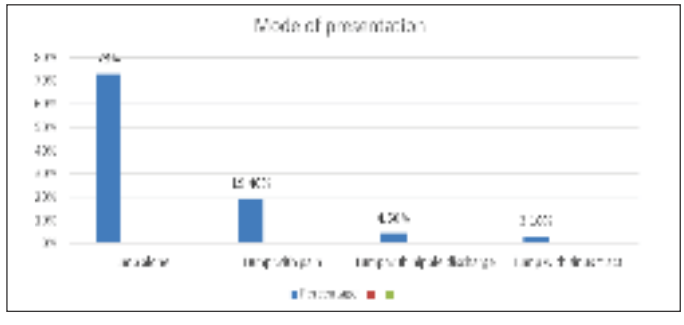

Fig 1: Bar diagram showing incidence of various presenting symptoms among benign breast lump

Out of 67 cases 60(89.5%) cases were diagnosed accurately by clinical examination as shown in Table 4.

Table 4: Diagnostic accuracy of clinical diagnosis for benign breast lump

Clinical diagnosis	No. of cases	Percentage
Correct	60	89.50%
Incorrect	7	10.50%

FNAC/Histopathology

Pathological evaluation was far better by histopathology as campared to FNAC.

Ultrasonographic evaluation:

All cases of fibroadenoma, ductal papilloma, duct ectasia and phyllodes tumour were accurately diagnosed **(Figure 2).** Duct ectasia were diagnosed as echogenically visible ductal dilatations. However 6 cases of fibro adenosis were incorrectly reported as fibroadenoma and 2 cases of tubercular mastitis were reported as suspected neoplasm.

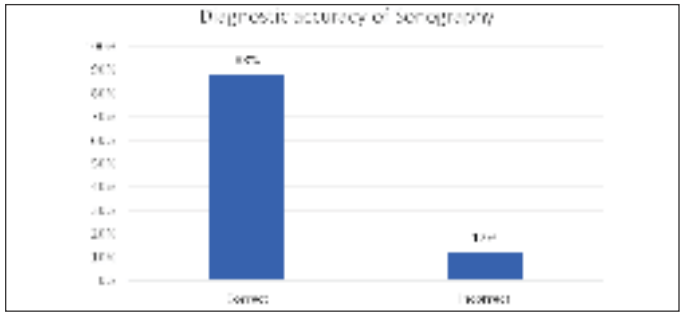

Fig 2: Bar diagram showing diagnostic accuracy of Ultrasonography in diagnosis of benign breast lump.

Mammography in the evaluation of benign breast lump

All the cases with breast lump were subjected to mammographical examination. 64 out of 67 cases came out as category 2 lesion, however phyllodes tumour was graded category 3 and two of the tubercular mastitis with lump were graded category 4.

DISCUSSION

The present study deals with 75 patients of Benign breast diseases, which involved 67 cases of benign breast lumps and 8 cases of recurrent breast abscesses. Present study depicts, predominant benign breast lump as fibroadenoma occurring in 65.7% followed by Fibroadenosis(23.80%), TB breast(4.50%), Ductal papilloma(2.90%), phyllodes tumour(1.5%) of breast lump. The findings of present study are in inconsistent with studies of different benign breast diseases.11-15

Presenting complaints in benign breast lump of the present study was similar to the findings of other similar studies Sangma et al 11 Abhijit et al 15

Diagnostic accuracy of clinical examination in diagnosis of benign breast lump of the present study was found to be similar to study of Abhijit MG et al15

Relationship of FNAC VS Histo-pathological evaluation in breast lumps of the present study was similar with the findings in a similar study by Gupta A et al 16 on 80 patients

In this study Diagnostic accuracy of ultrasound came as 88%. This finding was consistent with study by Gupta A et al16

CONCLUSION

Benign breast diseases are a common out patient complaint world wide as well as in India. It is essential to differentiate it from malignant ones and also between one another, as management is different for each diseases. The present study establishes the incidences of various benign breast disease and its diagnosis in relation to different diagnostic tests like FNAC, Histopathology, Ultrasonography and Mammography.

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Ethical clearance: Taken.

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Original Article

A Clinical Study On Efficacy Of Tamsulosin (An Alfa Blocker) In Expulsion of Lower Ureteric Calculus

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ABSTRACT

INTRODUCTION: The aim of the study was to evaluate the role of TAMSULOSIN in the medical expulsion therapy for distal ureteral stones, including the time taken for stone expulsion, rates of stone expulsion, stone size, and episodes of pain & dose of analgesic used.

MATERIAL AND METHODS: Total of 100 patients with distal ureteric calculus were studied. Patients with stone size from 4 mm to 10 mm were included in the study. patients were randomly divided into two groups: Study group (n=50), received Tamsulosin 0.4 mg in morning for 28 days, and Control group (n=50) received placebo drug. Both the groups received (diclofenac 75 mg) on demand and advised high fluid intake. Comparative prospective randomized control study was done. Statistical analysis used was independent 'T' test and chi square test.

RESULTS: There is no significant demographic differences between the two groups regarding Sex (P=0.416), Age (P=0.704) & Geographical distribution (P=0.649) .The average stone size was 7.14 mm (SD ± 1.6 mm), with no significant difference in the two groups (P=1.00). The Study group showed stone expulsion rate of 84% whereas the Control group showed stone expulsion rate of 32%, which was statistically significance (P<0.0001). In the Study group the average time of expulsion of stone was 8.3 days whereas in the Control group it was14.2 days, with statistical significance, (P<0.0001). The average dose of analgesics in the study group was 55.20 mg whereas, in the control group it was 639.58 mg, with statistical significance (P=0.001).

CONCLUSION: This study reveals that Tamsulosin is efficient for the treatment of distal ureteral stones. Tamsulosin decreases the number of ureteral colic episodes, by acting as a sssspasmolytic, increases and hastens stone expulsion rate, and decreases analgesic requirement.

Key words: Tamsulosin, ureteric calculus, alpha blocker

Urolithiasis afflicts about 13% of men & 7% of women Worldwide. Among all urinary tract stones, 20% present as ureteral stones, of which 70% are found in the lower third of ureter. The minimal invasive therapies for ureteric stone are now the accepted gold standards but with certain disadvantages.1 Recent studies have reported excellent results using Medical Expulsive Therapy (MET) for small, distal ureteric calculus. TAMSULOSIN, an Alpha-1A receptor blocker has proven to be effective as a MET agent. Therefore a prospective study was conducted between TAMSULOSIN GROUP & CONTROL GROUP to evaluate the efficiency of Tamsulosin in lower ureteric calculus expulsion. Aims and objectives of the study was to determine the efficacy of Tamsulosin in expulsion of lower ureteric calculus.

MATERIALS AND METHODS

Symptomatic patients after a detailed history & systemic examination they were subjected to basic investigations and imaging like ultrasonographic scanning of the urinary tract. After diagnosis of lower ureteric calculus they were included in the study. Consecutive 100 patients were studied; odd patients were included in the study group

(Tamsulosin group) and even patients were included in the control group. The study group patients were given Tab.Tamsulosin 0.4mg, advised high fluid intake and given analgesic on demand where as the Control group were advised for high fluid intake and analgesic. Regular Follow up was done by ultrasonography done weekly and final evaluation was done after completion of 4 weeks. Successful results were recorded as complete stone passage and failure if the patient failed to pass stone.

INCLUSION CRITERIA: Patients diagnosed with symptomatic, unilateral, solitary, lower ureteric calculus. Patients older than 18 years & below 65 years of age and patients having stone of size >4mm & <10mm were included in the study.

EXCLUSION CRITERIA: Children and mentally handicapped patients, stone size >10mm & <4mmand also recurrent stones of any size. Acute Fever, urinary tract infection, any prior urinary surgery or endoscopic treatment, pregnant woman, patients with calculus involving other than ureter, ureteric calculus associated with stricture urethra & other urological anomalies were excluded from the study.

RESULTS

In our study a total of 100 patients who came to surgery OPD with diagnosed distal ureteric calculus, were randomly divided into 2 Groups: Group I: Control group- (N=50) & Group II: Tamsulosin group OR study group- (N=50). We observed the following results that, highest number of patients were of the age group 30-39 years with 32%; followed by 40-49 year age group with 24%; then 20-29 year age group with 21%; followed by 50-59 year age group with 15%: 18-20 year age group with 5% and 60 -70 year age group with 4%. Age distribution of the cases in two groups is shown in Table 1. The mean age in the control group was 38.49 years with standard deviation of 13.45; while the mean age in the tamsulosin group was 37.6 years with standard deviation of 9.68. The P-value was 0.704.

Age group (in years)	CONTROL	TAMSULOSIN	TOTAL
18- 20 years	4 (8%)	1 (2%)	5%
20-29 years	13 (26%)	8 (4%)	21%
30-39 years	9 (18%)	23 (46%)	32%
40-49 years	12 (24%)	12 (24%)	24%
50-59 years	9 (18%)	5 (10%)	14%
60-70 years	3 (9%)	1 (2%)	4%
Total	50	50	100%

Table 1: Age distribution

In the control group there were 64% male and 36% female; whereas in the Tamsulosin group there were 56% male and 44% female. In total 60% were male patients and 40% were female. With chi-square test/(X2) test we got X2-0.66 and the P-value as 0.416. Sex distribution of the two groups is shown in Figure 1

Fig 1: Sex distribution

We also observed that patients from both the rural as well as urban areas were included in our study. As a whole we could find that maximum patients were from rural areas around 74% where as only 26% of patients were from urban areas; rural: urban ratio is 2.8:1.

The two groups were randomly divided, but overall stone sizes were similar in the two groups. Overall highest number (24%) of the patients had a stone of size 7 mm; followed by 6 mm size stone in 22%; then 5 mm stone in 18%; 8 mm size in 15%; then both 9 mm and 4 mm stone was present in 8% of patients respectively and 10 mm stone was seen in 5% of patients. Stone size distribution in the two groups is shown in table 2. In the control group the mean stone size was 7.14 mm with standard deviation of 3.56; while in the tamsulosin group the mean stone size was equivalent 7.14 mm with standard deviation of 3.68. The P-value was 1.00.

STONE SIZE In (mm)	CONTROL	TAMSULOSIN	TOTAL
4 mm	5 (10%)	3 (6%)	8%
5 mm	10 (20%)	8 (16%)	18%
6 mm	12 (24%)	10 (20%)	22%
7 mm	10 (20%)	14 (28%)	24%
8 mm	8 (16%)	7 (14%)	15%
9 mm	3 (6%)	5 (10%)	8%
10 mm	2 (4%)	3 (6%)	5%

Table 2: Stone size distribution

Maximum number of patients had right sided distal ureteric stone; 52% in control group whereas 56% in Tamsulosin group. The P-value was 0.689; X2=0.16

In control group out of 50 patients only 16 expelled out stone (32%); and rest 34 patients failed to expel out stone (68%). But in Tamsulosin group out of 50 patients 42 expelled out stone (84%); and only 8 failed to expel out stone (16%), X2 was 27.76 and P-value was <0.0001, which is highly significant. Stone expulsion rates are shown in Figure 2.

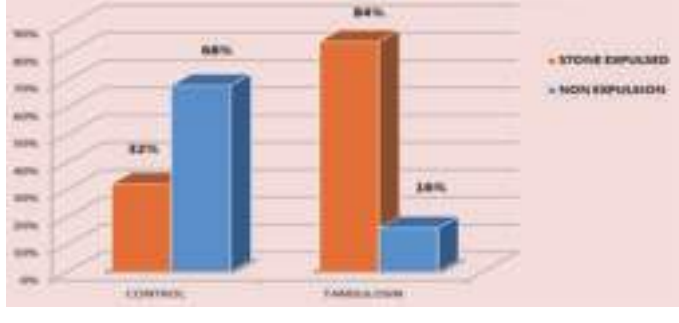

Figure 2: Stone expulsion rates

In control group 4-6 mm stone was present in 27 patients; out of which only 10 expulsed the stone, with expulsion rate of (37.03%); whereas in Tamsulosin group:-4-6 mm stone was present in 21 patients; out of which 18 patients expulsed the stone, with expulsion rate of (85.71%). Similarly, in control group:-7-10 mm stone was present in 23 patients; out of which only 6 patients expulsed the stone, expulsion rate was (26.08%); whereas in tamsulosin group:-7-10mm stone was present in 29 patients; out of which 24 patients expulsed the stone, with expulsion rate of (82.75%), as shown in the Table 3. [chi-square test; X2 was 20.72 and P-value was <0.00001.]

SIZE OF STONE In (mm)	CONTROL		TAMSULOSIN	
	Total stones	Expulsed stones	Total stones	Expulsed stones
4-6 mm	27	10 (37.03%)	21	18 (85.71%)
7-10 mm	23	6 (26.08%)	29	24 (82.75%)
Total	50	16	50	42

Table 3: Stone expulsion rate according to stone size

The Mean days for stone expulsion in control group was 14.2 days; whereas mean days for stone expulsion in tamsulosin group was only 8.3 days as depicted in Figure 3.

Within 14 days – in tamsulosin group 38 out of 50 patients (76%) expulsed the stone; where as in control group only 6 out of 50 patients (12%) showed stone expulsion. X2=26.19, P-value=<0.00001; this shows that there is a highly significant statistical difference in time taken for stone expulsion between both the groups.

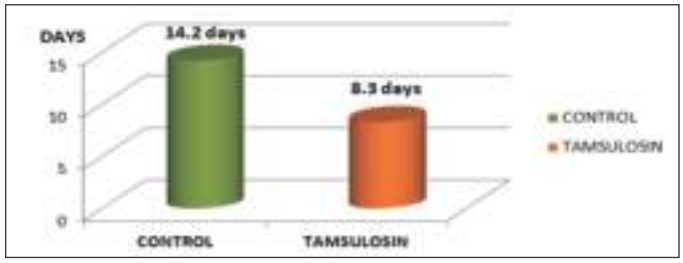

Figure 3: Stone expulsion time (mean days)

The results showed that: 40 out of 50 (80%) of patients of tamsulosin group were pain free; as compared to control group where only 12 out of 50 (24%) patients were pain free. X2=31.4 and P-value=<0.00001; which is highly significant statistical difference in terms of reduction of colicky pain experience by patients using tamsulosin. Mean dose of analgesic required by the patients using tamsulosin was 55.20 mg; whereas the patients in control group required a mean dose of 639.58 mg which was much higher. Analgesic requirement by two groups is shown in Figure 4. [P-value <0.001] which has highly important statistical difference in terms of analgesic dose required.

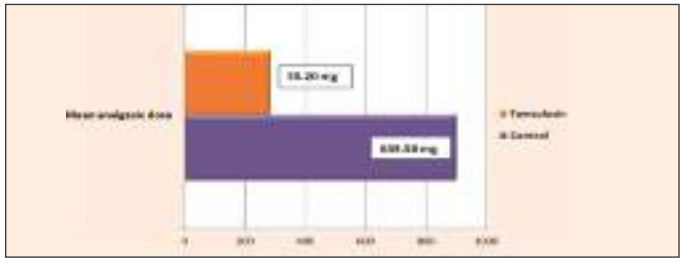

Figure 4: Analgesic requirement (mean dose used) in two groups

DISCUSSION

In the present era, the incidence of urinary stone disease is rapidly increasing, affecting up to 12% of the population. In this modern trend the management of patients having ureteric calculi has changed dramatically. Minimally invasive therapy is being given the prime importance as far as selection of any treatment modality is concerned.[8] Advances in endourological techniques and various modern laser instrumentations have largely changed the management of ureteral stones from open surgeries to minimally invasive methods like ESWL and ureteroendoscopic removal of stones. However, these methods are not without complications, not easily accessible in remote areas and are quiet expensive. Studies have reported an overall complication rate of 10-20% after ureteroscopic procedures, and with a few major complications such as ureteric perforation, avulsion of ureter and ureteric stricture occurring in 3-5% of all minimally invasive procedures.[9] In 15-32% of patients treated with shock wave lithotripsy, accumulation of perirenal fluid and subcapsular bleeds has been reported.1 The stone burden remains the primary factor in deciding the appropriate treatment.[2] But the choice of the ideal treatment largely depends on the type of equipment available, type and size of stone, patient's need and the surgeon's skill.[3] Majority of the stones that pass spontaneously, do so within a period of 6 weeks after onset of symptoms of lower ureteral stone. However, the expectant watchful waiting approach may result in complications, like infection of the urinary tract, hydronephrosis and renal function defects.10,11 Therefore it is difficult to choose between minimally invasive therapies and watchful waiting, especially when patients come with few symptoms and/or small sized stones.

It was this period where came a need to hasten the expulsion of stones in the distal part of ureter and that is where the medical expulsive therapy proved to be useful in facilitating expulsion of lower ureteric calculus and reducing symptoms of ureteric colic. The main goals of medical expulsive therapy are to prevent the modifiable factors responsible for stone retention, such as ureteral spasm, ureteral edema and ureteric infection and to hasten stone expulsion, reduce the time taken for stone expulsion and to control the colicky pain until the expulsion of ureteric stone

The medical expulsive therapy with Alpha-1 antagonist (TAMSULOSIN) have a crucial impact in spontaneous painless elimination of the lower ureteric stones upto 10 mm size.[4,5] α1A and α1D adrenergic receptors are present more densely in the distal 1/3 of the ureter (including intramural part).When stimulated, they increase the basal tone, peristaltic wave frequency and the ureteric contractions of the lower ureter. Tamsulosin works on the obstructed ureter by increasing in the intraureteral pressure gradient around the stone, thus there is an increase in the urine bolus above the stone (and consequently an increase in intraureteral pressure above the stone) with a decrease in peristaltic activity below the ureter (and consequently a decrease in intraureteral pressure below the stone). There is also a decrease in micturition pressure and basal pressure at the bladder neck, thus increasing the chance of stone expulsion.[7] Thus, tamsulosin shows the antagonist activity by blocking alpha receptors & facilitating stone expulsion from lower ureter.

In this study there was no statistically significant difference in the age distribution and sex distribution between the two groups.The Stone expulsion rate in TAMSULOSIN GROUP was 84 %(42 out of 50 patients) whereas in CONTROL GROUP it was just 32% (16 out of 50 patients). It showed a highly important statistically significant difference between the two groups in the stone expulsion rate, (P-value= <0.0001). The average time of expulsion of stones in TAMSULOSIN GROUP was 7.3days, whereas in CONTROL GROUP was 14.2 days. These results showed a highly important statistically significant difference observed in stone expulsion time between the two groups. (X2=26.19 & P-value<0.00001). The amount of analgesic dosage in TAMSULOSIN GROUP was 55.2 mg whereas; in CONTROL GROUP it was as high as 639.58 mg.

My study coincided with other studies as according to Cervenakov et al - α1 blockers decreases lower urinary tract symptoms(LUTS), accelerated expulsion of small terminal ureteric calculus in 80.4% of patients & potentiate the action of analgesic drugs.[6]

Dellabella et al, used Tamsulosin as a spasmolytic drug , & observed stone expulsion rate in 90% and control of colicky pain.[7]

Ramesh.A[12] et al(2016), stated in their study that considerably lesser amount of analgesic was required by the patients of tamsulosin group. The results of their study showed that 285 mg was the mean dose of analgesic required by the patients using tamsulosin, where as the mean dose of analgesic required by the control group was 903 mg. The results of their study were in concurrence with the results of our study.

Petrit Nuraj [13]et al(2017), stated that tamsulosin can be used as an adjunct to analgesic drugs and is also effective in reducing the dosage of analgesic required. They found that the mean amount of analgesic dosage used by the patients of tamsulosin group was 63.7 mg, where as the patients of the control group required 109.2 mg. The result of their study is in concurrence with our study.

Ureteric stone expulsion by medical therapy (Tamsulosin) reported by various authors are tabulated belaow (Table 5). Our expulsion rate is in concurrence with other reports.

STUDY	RATE OF STONE EXPULSION	MEAN TIME TAKEN FOR STONE EXPULSION	DOSAGE OF ANALGESIC (Mean)
Our study	**84%**	**8.3 days**	**55.20 mg**
Petrit Nuraj [13] et al	90.4%	9.6 days	63.7 mg
Ramesh.A[12] et al	84%	3.94 days	285 mg
Dellabella [7]	90%	4.4 days	-
Cervenakov [6]	80.1%	-	-

Table 5: Stone expulsion rate by medical (Tamsulosin) therapy reported by different authors

CONCLUSION

Around 70% of the Ureteric calculi are found in the lower ureter due to its narrow caliber compared to the rest of the tract. Majority of the ureteric calculi of size <10 mm gets expelled spontaneously within 6 weeks from the onset of the symptoms, therefore, the guidelines also recommend the non-surgical therapy as the initial approach for these size of calculi. Watchful waiting can lead to increase in patient's discomfort and can increase the chances of complications. We therefore recommend Medical Expulsive Therapy by Tamsulosin, for the treatment of small, distal ureteric calculus, so as to decrease the patient's agony, decrease complications like urinary tract infections and reduce cost factors.

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Case Report

Negative Pressure Wound Therapy (NPWT) In The Management Of Diabetic Foot Ulcer with Maggot Infestation- A Case Report

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ABSTRACT

Maggot infestation of wound is a rather uncommon complication, typically affecting old, debilitated, neglected, bed ridden and diabetics. Diabetic foot infections (DFIs) rarely include fungal infections, but when they do amputation rates are increased by ten times. We describe a seventy six year old diabetic female who presented to us in sepsis and diabetic foot ulcer with multiple maggots infestations presenting with cellulitis and sepsis. After admission, subcutaneous short acting insulin was used to control her blood sugar and broad spectrum antibiotics were used to control her sepsis. After three days of wound debridement and extracting maggots using tweezers, we applied Negative Pressure Wound Therapy (NPWT) on the wound with pressures of -90 mm of Hg to -125 mm of Hg in intermittent fashion. After 5 days of NPWT a healthy wound with healthy granulation tissue was seen. The patient also improved clinically and her symptoms improved significantly and she was discharged from hospital. After one month, when she came for review, the ulcer had almost healed. Negative Pressure Wound Therapy (NPWT) used in the treatment of a complicated diabetic foot ulcer, infested with multiple maggots showed very promising and excellent result, when used in a background of prompt control of blood sugar and infection using short acting insulin and broad spectrum antibiotics respectively.

Keywords : Negative Pressure Wound Therapy (NPWT), Maggots, Diabetic foot Ulcer.

INTRODUCTION

Maggot infestation of wound is a rather uncommon complication, typically affecting old, debilitated, neglected, bed ridden and diabetics [1]. Given the demography of affected patients, these infestations can quickly progress into fulminate sepsis. Diabetic foot infections (DFIs) rarely include fungal infections, but when they do amputation rates are increased by ten times [2]. Thus prompt and aggressive treatment is necessary for optimal outcome. Myiasis, an infestation of fly larvae, was first described in 1840. The larvae are deposited as eggs into living mammals where they feed and complete their life cycle [3]. Cutaneous myiasis can manifest as furuncular, inflamed skin, wounded skin, myiasis linearis (larvae migrans) and traumatic myiasis. Myiasis in diabetic patients falls into the wounded skin group. In this group, myiasis can be caused by the larvae of Cochliomyia hominivorax, Chrysomya bezziana, Lucilia sericata, Phormia regina, Sarcophaga, Calliphora and Stomoxys [4,5]. Maggot infestation is of two types namely obligate and facultative. The former involves maggot which have a necessary step in their life cycle in living hosts whereas the later is an opportunistic infestation of dead and necrotic tissues.

Although beneficial effects of wound infestation with maggots had been known for many centuries, it was not until dr Zacharias recognized medical importance of maggots during the American Civil War. He intentionally introduced maggots into the wound for its debridement [6]. Present use of maggots came in the 1980' when better methods of sterilization both eggs and maggot were developed and clinical efficiency of antibiotics used for wound treatment decreased dramatically. Today maggots' therapy (like for example with Lucilia sericata) has became established in leg ulcers, carbuncules, pressure ulcers and infected traumatic wounds. But these are done with sterilized eggs and maggot in a controlled environment under proper clinical supervision. On the

contrary, uncontrolled maggot infestation in a background of an infected diabetic foot ulcer and sepsis may be a difficult clinical situation if not intervened timely.

A myriad of treatment options have been described in literature for treatment of myiasis. These include mandatory debridement with the help of various techniques for extraction of maggots. Others are occlusion/suffocation techniques, extraction under local anaesthesia, application of chloroform, application of turpentine oil etc. However what is left after the debridement is a wound which is still prone to infection and further complications. Very little literature exists with respect to use of Negative Pressure Wound Therapy (NPWT) in such cases. Given the various advantages namely reducing bacterial load, removal of excess fluids, improved circulation NPWT offers an attractive treatment modality in such patients. This report describes a case of diabetic foot ulcer infested with maggots, presenting with cellulitis and sepsis being treated with a combination of mechanical extraction and NPWT.

CASE REPORT

A seventy six (76) year old female, known diabetic for last twelve years on irregular medications and hypertensive for 3 years, presented with fever for five days, vomiting for three days and altered behaviour for one day. The fever was intermittent in nature, high grade and associated with chills and rigour. There was redness and swelling of her left leg in the lower third of her shin which showed an ulcer. The ulcer was irregular in shape with approximately 5 cm X 3 cm surface area, with pus oozing from it **(Figure 1)**. The vomiting was frequent and associated with undigested food particles. The patient was drowsy with no orientation to time, place and person. On general examination, pulse was 112/minute; blood pressure was 168/94 mm Hg. There were signs and symptoms of cellulitis of left leg with septicaemia. Her blood sugar was 546 mg/dl and she was immediately started on short acting subcutaneous human Insulin eight hourly and frequent blood sugar monitoring was done. Intravenous fluid was also started to reduce the hyperosmolar state. Her total leukocyte count was 22,000/ cubic mili-meter with predominant polymorphs and ESR was 110 mm AEFH. She was immediately started on broad spectrum antibiotic Piperacillin Tazobactum 4.5 gm 8 hourly along with oral Linezolid 600 mg twice daily. Wound dressing was done immediately and it revealed 80 to 90 maggots which were extracted. Over next three days, wound was regularly deb rided and remaining maggots were extracted using tweezers. In-between debridement the wound was dressed with wet gauze and local antiseptic solutions.

Figure 1: Infected diabetic foot Ulcer (5 cm X 3 cm) after removal of multiple (80-90) maggots with slough and pus, unhealthy base and irregular margin

As patient's general condition improved, after proper consent of the patient and her attendants, we applied NPWT (VELNeXTTM Machine and VELNeXTTM Disposable dressing, manufactured by Datt Mediproducts PVT Ltd) on the wound with pressures of -90 mm of Hg to -125 mm of Hg in intermittent fashion **(Figure 2).** She did not complain of any local pain or irritation but this has to be considered in the background of the fact that she had sever peripheral sensory neuropathy, owing to her prolonged state of uncontrolled diabetes. In the mean time, her total leukocyte count started to decrease gradually (9,000/ cubic mili-meter) and local inflammation also subsided. There was no fever and she was clinically responding to the antibiotics. Her blood sugar also reduced to 184 mg/dl in fasting state and 228 mg/dl 2 hours postprandial four days after hospitalization.

Figure 2 : Negative Pressure Wound Therapy (NPWT) with pressures of -90 mm of Hg to -125 mm of Hg in intermittent fashion

After five days of NPWT a healthy wound with healthy granulation tissue was seen **(Figure 3).** The patient improved clinically with no fever or pain in leg. On enquiring about her experience with NPWT, she said that she did not have any pain or difficulty but she experienced slight itching after three days of NPWT and was relived a day after removal of her dressing. Her symptoms improved significantly and she was discharged from hospital after two days of removal of NPWT. After one month, when she came for routine check up, there was significant improvement in the wound and the surrounding tissue **(Figure 4).**

Figure 3: After removal of Negative Pressure Wound Therapy (NPWT) on day 5 (120 hours)

Figure 4 : At review after one month (30 days)

DISCUSSION

Maggot infestation along with its medical complications brings lots of psychological and social stigmata. It is distressing to both patient and family. In diabetic patients the danger is amplified due to risk of fulminant sepsis due to attendant cellulitis [7]. Diabetic wound milieu is significantly different than other wound found in general practice. Although maggots' therapy (especially with Lucilia sericata) has became established in leg ulcers, carbuncules, pressure ulcers and infected traumatic wounds, these require sterilized eggs and maggot under proper clinical supervision. As such a diabetic wound is associated with vasculopathy, poor fibroblast function and abnormal cytokine concentrations [8]. This makes wound healing slow and wound care difficult. Presence of maggots uniquely disturbs the wound environment. The recommended treatment of myiasis is to collect all visible larvae directly from the wound and to perform active debridement and daily dressing with antiseptic solutions; if possible, the infested area should be removed completely [9,10]. The larvae and eggs are forced to the surface by triggering regional hypoxia with a toxic substance; then, the larvae on the surface are mechanically cleaned [11]. Application of chloroform, chloroform in light vegetable oil, or ether, with removal of the larvae under local anesthesia, has been advocated for wound myiasis [12]. In our case report we did not use chloroform or ether but negative pressure may have acted as an effective alternative.

We have used NPWT to create regional hypoxia after removal of the larvae mechanically. NPWT provides certain unique advantages to tackle these difficult cases. It helps in improving circulation, bacterial clearance and enhanced granulation tissue formation among others [13]. In patients with diabetic foot ulcer in the background of diabetic neuropathy, maggot infestation causes both increased risk of mortality and morbidity including amputation. Our report describes a unique combination of mechanical wound cleaning, removal of maggots, regular dressing with NPWT leading to a rapid improvement in the management of a complicated diabetic foot ulcer in a high risk patient.

SUMMERY

Negative Pressure Wound Therapy (NPWT) was used in the treatment of a complicated diabetic foot ulcer, infested with multiple maggots. The results were very promising and showed excellent result, when used in a background of prompt control of blood sugar and infection using short acting insulin and broad spectrum antibiotics respectively.

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Case Report

Barium Peritonitis - A Case Report and Review of Literature

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ABSTRACT

Contrast examination of the gastro intestinal tract is rarely complicated by perforation. Barium peritonitis secondary to perforation of the gut is associated with high mortality. Colon and rectum are frequently associated with most perforations limited to the retro peritoneum. We present here a rare case of extravasation of barium sulfate following contrast meal investigation, and some important aspects in the management of this unusual occurrence.

KEY WORDS: Barium Sulfate; Peritonitis; Duodenal Ulcer; Contrast Meal; Perforation; Laparotomy.

INTRODUCTION

Radiological examinations are essential for evaluation of the Gastro Intestinal abnormalities. Use of contrast meal studies is limited in the modern days due to the advent of endoscopy. Low cost, high density and complete inertness in the gut have made Barium Sulfate the commonly preferred contrast medium.

The accidental introduction of barium sulfate suspension into the peritoneal cavity produces acute peritonitis. The severity of the peritonitis is proportional to the quality of barium introduced into the peritoneal cavity. Rosenthal reported the first case of barium peritonitis in 1916 [1]. The incidence of barium peritonitis following barium meal investigation is much lower than that of colon and rectal perforations, with only around 30 cases reported in English literature [2]. The chemical peritonitis is characteristically severe and difficult to treat associated with mortality and increased hazard of future bowel obstruction in survivors [3].

CASE REPORT

A 58 year old female with poor general condition developed progressively severe abdominal pain shortly after completion of a barium meal investigation for suspected peptic ulcer disease. She presented to us after 48 hours of the onset of symptoms with features of generalized peritonitis. Plain picture abdomen studies confirmed the presence of extra luminal dye.

At emergency laparotomy, a perforated duodenal ulcer was noted along with barium contamination throughout the peritoneal cavity **[Fiqure 2].** The barium formed a membrane like structure with multiple clumps, covering almost all the visceral and parietal surfaces [Fiqure 1]. Extensive peritoneal toileting was done with warm saline. Perforation was closed with omental patch. Complete removal of all contamination was felt hazardous and impractical and significant quality of barium was undoubtedly left behind.

Fiqure 1: On table picture of barium sulphate film over bowel.

Fiqure 2: Duodenal ulcer perforation with barium sulphate extravasation through the defect

She was started on broad spectrum antibiotics and with nutritional supplementation. Recovery was uneventful and she was discharged on the 8th post operative day. She is now on follow up with no major complaints.

DISCUSSION

Although barium studies of the gastro intestinal tract are a safe and accurate diagnostic modality, complications such as perforation, impaction, obstruction and aspiration of barium have all been reported [4]. Following perforation, rapid spread of barium throughout the peritoneal cavity can be documented radiographically. This results in chemical peritonitis leading to exudation of large volumes of extracellular fluid and albumin, resulting in the need of aggressive fluid resuscitation in combination with broad spectrum antibiotics [2, 5] Modern barium contrast medium contains additives designed to maintain suspension and coat mucosal surfaces and is thus more adherent [6]. Barium within the peritoneal cavity as such begins to accumulate in small fibrin covered clumps which adhere firmly to parietal and visceral surfaces and cannot be removed easily. The contamination eventually undergoes a process of successive aggregation, partial or complete phagocytosis and fibroblastic encapsulation with subsequent adhesion formation. As such 30% of survivors generally presents with bowel obstruction [7]. Early laparotomy with removal of barium and vigorous peritoneal toilet has been shown to diminish the intensity of peritonitis and reduce morbidity and mortality [2, 5, 6]. Certain authors have recommended the use of urokinase (72000 I.U. with 500 mL 0.9% Saline) for toileting [2]. Omentectomy may also be undertaken if the structure is saturated with a substantial volume of barium, with the sole aim to reduce future bowel obstruction [2, 5]. Post operatively, close attention is to be given to fluid balance and administration of broad spectrum antibiotics. Keeping in mind the extravasation of albumin due to chemical peritonitis, a nutritional supplementation becomes paramount. The prognosis of barium peritonitis has long been held to be poor, with mortality in early series being 53%. More recent reviews have a better rate of 20% [8].

Such improvements can be attributed to prompt diagnosis and early laparotomy, along with the advent of better broad spectrum antibiotics.

CONCLUSION

Barium sulphate suspension in the peritoneal cavity produces severe peritonitis with high mortality. The logical treatment is early laparotomy with copious irrigation of the peritoneal cavity with normal saline, followed by parenteral fluids, broad spectrum antibiotics and nutritional supplementation. Scattered barium clumps should be disregarded as added operative manipulation enhances chances for subsequent formation of adhesions. A better understanding of the pathophysiology of this condition is still needed to tackle the problem and decrease the rate of mortality and post operative complications.

CONSENT

Written informed consent for publication of this case report and any accompanying images was obtained from the patient.

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Case Report

Intra Abdominal Fibromatosis Presenting With mechanical Small Bowel Obstruction

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ABSTRACT

Intra abdominal fibromatoses are rare neoplasms with diverse clinical manifestations. Intestinal obstruction, however, is a more commonly encountered surgical diagnosis. Not very common, but we come across, an acute presentation as intestinal obstruction which can be associated with intra abdominal fibromatosis, also known as "Desmoid Tumour." Desmoid tumors are cytologically bland fibrous benign neoplasms originating from the musculoaponeurotic structures throughout the body. The term desmoid, coined by Muller in 1838, is derived from the Greek word desmos, which means tendon-like. Morphologically, they appear as infiltrative, usually well-differentiated, firm overgrowths of fibrous tissue, and they are locally aggressive.

This report details a case of isolated intraabdominal fibromatosis, primarily involving the mesentery, clinically presenting as mechanical small bowel obstruction. The patient was managed with Exploratory Laparotomy with Adhesiolysis and separation of fibrous bands intraoperatively and consequently had a full resolution of his symptoms.

Keywords: Intraabdominal Fibromatosis, Mechanical Bowel Obstruction, Desmoid Tumours, Exploratory Laparotomy, Adhesiolysis.

INTRODUCTION

Some common causes of small bowel obstruction are hernias, adhesions or malignancy [1]. Rarely do we come across a case of Intestinal Obstruction due to Intra Abdominal Fibromatosis; also known as desmoid tumors. They are a benign proliferation of myofibroblasts arising from the mesentery and retroperitoneum [2]. Majority of reported cases are spontaneous, some do occur in the setting of Familial Adenomatous Polyposis or Gardner's Syndrome. Gastro-Intestinal Stromal Tumors (GIST) can also be considered a differential, particularly in elderly [3]. They have no malignant potential and have a tendency towards bowel involvement [4].

Here we report a case, presenting with small bowel obstruction, secondary to intra abdominal fibromatosis.

CASE REPORT

An 18-year-old male patient presented to the Emergency with complaints of pain abdomen for 7 days and obstipation for 4 days. On examination, his abdomen was distended. No mass or ballooning was found on digital rectal examination. His vitals were normal and laboratory studies were unremarkable. A Plain Abdominal radiograph demonstrated dilated bowel loops and multiple air-fluid interfaces **(Figure 1)**. Ultrasonography revealed dilated bowel loops up to 4.2 cms, filled with echogenic fluid, showing sluggish to and fro peristaltic movements.

Figure 1 : Plain Abdominal Radiograph showing multiple air fluid levels and dilated bowel loops

With the provisional diagnosis of acute intestinal obstruction, we planned and proceeded for an emergency exploratory laparotomy.

Abdomen was accessed via a midline Incision. Few bands were adhered to the peritoneum. Bowel was traced from the duodenojejunal flexure. Adhesiolysis was done with separation of interbowel loops as we proceeded. The jejunal and ileal loops were found adhered to each other with some adhesions giving way on blunt dissection while other adhesions required more careful and meticulous separation.

The greater omentum was hypoplastic. Mesenteric lymphadenopathy was noted. A fragment of omentum, resected fibrous bands and 2 ileal mesenteric nodes were saved for histological analysis.

Stomach and other viscera were uninvolved. There was no evidence of strangulation or gangrene of the bowel.

The patient's postoperative period was uneventful and he was discharged 2 weeks later after ensuring near normal bowel function and resumption of a regular diet. At a follow-up visit 1 month later, the patient was doing well with complete resolution of his abdominal symptoms.

Histopathology illustrated fibrous adipose tissues of mesentery with edematous fibrous tissue with spindle to stellate cells with spindle to ovoid nuclei and focally prominent nucleoli. Nodes showed reactive sinus histiocytosis. Histological features of dysplasia or malignancy were absent. Subsequent histology and immunohistochemistry determinations favored the diagnosis of Fibromatosis **[Figure 2].**

The cells were found immunoreactive for Smooth Muscle Actin (SMA), CD34 and Ki-67. Cells were not immunoreactive to Desmin, Beta-Catenin and Cd117.

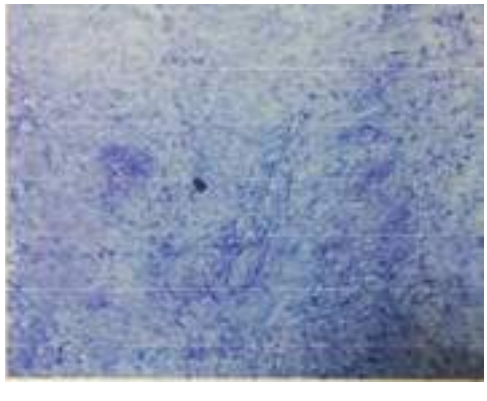

Figure 2 : Histopathology showing abundant fibrous tissue.

DISCUSSION

Small bowel obstruction as a sequel of intra abdominal fibromatosis is rarely described in the literature. A few differentials whose symptoms mimic that of intra abdominal fibromatosis include lymphoma, carcinoid, sclerosing mesenteritis, carcinomatosis and mesenteric mesothelioma [5].

Mesenteric fibromatoses are rare, locally invasive, non-metastasizing type of intra-abdominal fibromatoses. The majority of intra-abdominal fibromatoses arise from the mesentery or retroperitoneum with frequent involvement of the small bowel wall. Although benign, these lesions have a high rate of recurrence and local extension [6].

Though several studies have been published on extra-abdominal fibromatosis as well as on extramesenteric abdominal fibromatosis, extensive research studies are still lacking on mesenteric fibromatosis.

It has been suggested that contrast-enhanced CT and magnetic resonance imaging (MRI) may offer some correlation with histological findings, but there are no specific radiologic features to diagnose fibromatosis [7].

On pathologic evaluation, desmoid tumors appear as homogenous proliferations of wavy spindle cells without atypia or necrosis, separated by large amounts of collagen and dilated thin-walled vessels in a parallel pattern [8]. The lack of mitotic activity and pleomorphism characterizes fibromatosis.

For the definition of GIST, a CD117 positivity is an absolute requirement, whose expression consequences from a mutation of the c-Kit gene.

In most instances, management is multimodal and tends to be highly individualized. In the current case, simple adhesiolysis of the fibrous bands and separation of inter loop adhesions was performed. There was no indication for additional therapy as there has been no evidence of recurrence after 1 month of close follow-up. That being said, the time period is too short to predict recurrence, serial monitoring is planned semiannually.

CONCLUSION

This is a rare case of intra abdominal desmoids fibromatosis presenting with symptoms of intestinal obstruction. Due to the rarity and heterogeneity of this disease, desmoid fibromatosis should be managed with a multidisciplinary approach. Treatment recommendations regarding surgery, radiation, and systemic therapy are evolving. While more patients are being treated with observation for this disease, perhaps developments will come from genetic studies of these tumors.

Concent:

Written informed consent for publication of this case report and any accompanying images was obtained from the patient.

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Conflict of interest: There are no conflicts of interest.

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Case Report

Retroperitoneal liposarcoma: A rare tumor in a two years old boy

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ABSTRACT

Liposarcomas are rare in children. They can occur in any part of the body but extremities and retroperitoneum are the common sites. Liposarcoma usually presents as a growing mass with pressure symptoms. Undifferentiated tumors are likely to produce distant metastasis. Complete surgical resection is the mainstay of therapy. Role of adjuvant chemotherapy is not well established. Outcome depends on location and histological type of the tumor. Liposarcomas of the extremities have better prognosis than retroperitoneal liposarcoma. We treated a 2 years old boy with retroperitoneal liposarcoma by surgical resection.

Key wards: Liposarcoma, retroperitoneal liposarcoma, children.

INTRODUCTION

Liposarcomas are malignant tumor of adipose tissue. They commonly occur in extremities followed by retroperitoneum. Liposarcomas are rare in children. Well differentiated Liposarcomas behave like benign tumor but have potential for local recurrence, whereas higher grade dedifferentiated tumors are likely to produce distant metastasis. Surgical resection is the mainstay of therapy. We report a case of retroperitoneal liposarcoma in a two years old boy treated by surgical resection.

CASE REPORT

A two years old male child presented with gradual enlargement of the abdomen for last 6 months. His micturition and bowel habits were normal. Child was well preserved; abdominal examination revealed a large intra-abdominal mass occupying left side of the abdomen and crossing to the right. Mass was slightly mobile in both the directions. CT scan showed a left retroperitoneal lipomatous mass, left kidney was pushed upwards and medially **(Fig.1).** Routine blood and urinalysis were normal. Serum alfa feto protein level was also normal. Surgical excision was planned. Abdomen was opened through a generous transverse incision. Left colon was reflected medially and the mass was dissected from the transverse mesocolon, left kidney and ureter to which the tumor was densely adherent **(Fig.2)**. Mass was excised en-masse without rupture. Post operative period was uneventful. Patient was discharged on 7th post operative day. Histopathology showed well differentiated liposarcoma. Child has been doing well without recurrence during two years follow up period.

Figure 1: CT scan showing the mass; left kidney is pushed upwards and medially

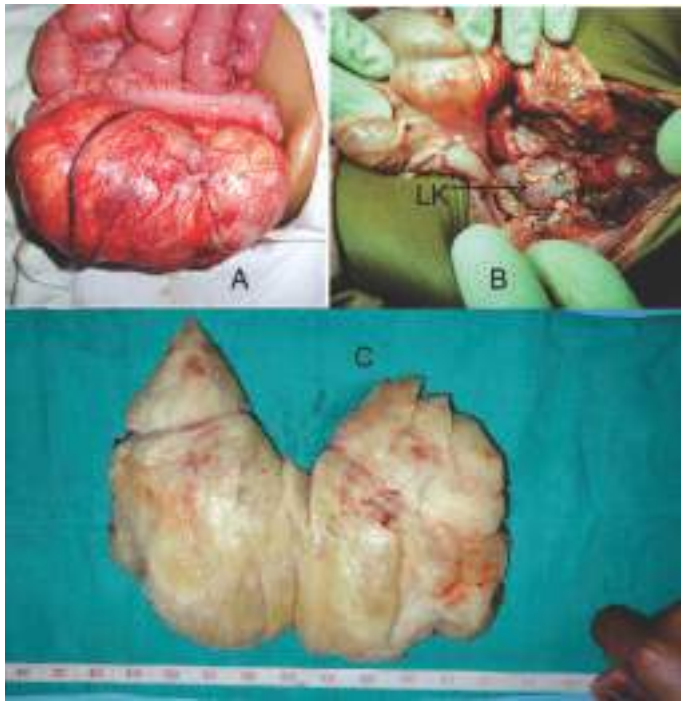

Figure 2: Intra-operative pictures: A) showing the mass behind the colon, B) tumor bed after resection;
C) resected specimen- cut section.

DISCUSSION

Liposarcomas are predominantly a disease of adulthood with peak incidence around the 5th to 6th decade of life with a slight male predominance. Liposarcomas are rare in childhood, representing about 2% of all childhood soft tissue sarcomas, with the peak incidence occurring in the second decade of life [1]. To our knowledge our reported case is the youngest patient with liposarcoma.

Liposarcomas can develop in any part of the body. The extremities are the most common primary site, accounting for about 40% of the cases. The most common sites are the thigh followed by retroperitoneum. Whereas Wilms tumor and Neuroblastoma are the most common retroperitoneal tumors in children, retroperitoneal liposarcoma is the rarest.

The World Health Organization categorizes liposarcoma into five distinct histologic subtypes: well differentiated, dedifferentiated, myxoid, pleomorphic, and mixed-type. There is an association between site of primary tumor and histological subtypes. Myxoid type is most common in the extremities whereas pleomorphic occurs predominantly in axial sites. Myxoid histology is the most common subtype in children, whereas in adult patients the well-differentiated or dedifferentiated subtypes are more commonly encountered [2]. But histology of our case was well-differentiated liposarcoma.

Histologically, well-differentiated liposarcoma is very similar to normal adipose tissue and is composed primarily of mature adipocytes. However, these adipocytes may vary considerably in size and have nuclear atypia. Lipoblasts may be a feature of well-differentiated liposarcoma but are not required for diagnosis. Well differentiated liposarcomas are lower grade tumor than dedifferentiated, myxoid, round cell, and the pleomorphic types of liposarcoma, and has a high rate of local recurrence but does not have metastatic potential [3, 4].

Ultrasonography can detect the lipomatous mass but cannot differentiate between a benign lipoma and a liposarcoma. Large size and nonlipomatous elements such as thick septa distinguish well-differentiated liposarcoma from lipoma on CT and MRI [4,5].

Surgical resection remains the mainstay of local therapy. The use of chemotherapy for treatment of liposarcoma is controversial, but when used, myxoid tumors appear to respond better than dedifferentiated or well-differentiated tumors. When compared, survival for patients who received only surgical treatment versus multimodal therapy, there was no statistically significant difference in outcome (P=0.54). Chemotherapy does have a role in facilitating tumor resection in patients with unresectable disease, but the optimal therapeutic agents remain unclear [2]. The role of chemotherapy for treatment of pediatric liposarcomas is not well established. As our patient had complete tumor resection and well-differentiated histology, we did not use post operative chemotherapy.

Prognosis depends on histological type and location of the tumor. Well-differentiated liposarcoma has the best prognosis with five-year survival rates of 90% or higher whereas pleomorphic liposarcoma has five-year survival rates reported to be as low as 30% [3, 6]. Retroperitoneal well-differentiated liposarcoma has a recurrence rate of over 90% versus 43% for an extremity lesion. Dedifferentiated liposarcoma in the retroperitoneum has a nearly 100% recurrent rate [3]. Though our patient has not shown recurrence during two years follow up, long term follow-up is essential.

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Case Report

Axillary Fibroadenoma Emulating As Axillary Lymphadenopathy: A case Report

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ABSTRACT

Fibroadenoma is a benign fibroepithelial tumour of the breast commonly seen in young females. Fibroadenoma arising from ectopic breast tissue is a rare entity. Here we present a case of axillary fibroadenoma mimicking as axillary lymphadenopathy. An 18 year old girl presented with a lump in her left armpit since 2 months. History and clinical examination of the left axilla was suggestive of axillary lymphadenopathy but absence of any cut injury or any infected wound in her left upper limb in the recent past made us think of many other possibilities. Fine needle aspiration cytology and Histopathological examination after excision confirmed that the mass as fibroadenoma in the Axillary ectopic breast tissue (EBT). The incidence of axillary EBT is 2-6 % with female preponderance. Though rare, EBT carries the risk of developing fibroadenoma or carcinoma because they exhibit a similar effect of hormonal changes like the normal breast tissues. Investigation and treatment of fibroadenoma of EBT is similar like normal breast fibroadenoma.

Key wards: Fibroadenoma, ectopic breast tissue, mammary line

INTRODUCTION

Fibroadenoma is a benign fibroepithelial tumour of the breast [1], which is also referred to as breast mouse due to its far-reaching mobility[2]. Worldwide, 10% of females suffer from fibroadenoma once in a lifetime[2] and more commonly it is seen in young females[3]. Hormonal imbalance is thought to be responsible as it is more commonly seen during puberty, pregnancy or oral contraceptive use[4]. The majority of the patients don't need treatment[2]. Fibroadenoma arising from ectopic breast tissue is a rare entity[5]. Here we present a case of axillary fibroadenoma emulating as axillary lymphadenopathy.

CASE REPORTS: An 18 year old girl attended surgery outpatient department with the complaint of a lump in her left armpit for 2 months. She noticed accidentally while taking a shower. She didn't give a history of pain over and around the lump. The lump was static in size. She was not aware of any other lump in both of her breasts or on the contra-lateral armpit. She was unmarried and dint given any history of oral contraceptive use, nipple discharge or myalgia during her menstrual cycle. There was no history of a breast lump or breast related diseases in her family. There was no history of any cut injury or any infected wound in her left upper limb in the recent past. No abnormality was detected on her general examination. Local examination of left axilla revealed a solitary, round, firm, non-tender lump of approximately 2.5 cm size (**Figure 1**). It can be lifted up from the underlying axillary soft tissue. It was mobile and there was no skin puckering while checking for mobility. There was no pulsation over the lump. No abnormality was detected in the breasts, chest wall and the contralateral axilla. FNAC

was advised which was suggestive of fibroadenoma. On patient request surgical excision was performed under local anaesthesia (**Figure 2**) and the specimen was sent for histopathological examination (HPE). HPE was also suggestive of fibroadenoma similar to the normal breast fibroadenoma.

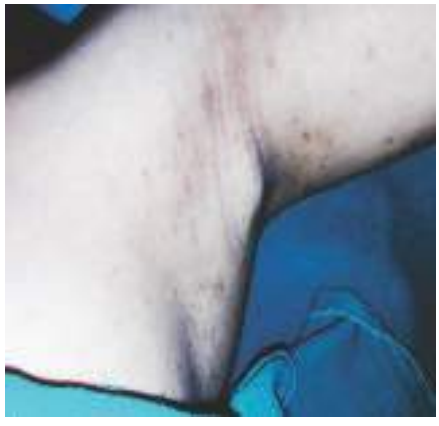

Figure 1: Left axillary Fibroadenoma presenting as axillary lymphadenopathy.

Figure 2: excised sample of the Fibroadenoma.

DISCUSSION

Normally, the mammary ridge (MR) or the milk line over the pectorial region develops as a breast whilst the remaining regresses[6, 7]. The MR extends from the mid-axillary region to the medial aspect of the groin[8, 5]. The occurrence of breast tissue (glandular component/ nipple-areolar complex or both) aside from the two pectorial regions is termed as ectopic breast tissue (EBT) or supernumerary breasts or accessory breasts[8]. The theorem behind EBT origin is either the failure of regression and displacement of the MR or derivation from the modified apocrine sweat glands[9, 8, 7]. The incidence of EBT is 0.4-6% and it is more common in females[8]. EBT is more commonly seen in the thoracic or abdominal portion of the MR below the inframammary crease followed by axilla[8]. There are few reports of EBT outside the MR, namely on the face, lumbar region, vulva, perineum, and foot[8, 9]. The incidence of axillary EBT is 2-6 % with female preponderance[7]. EBT can present as either, small and non-palpable or visible and palpable lump[6]. EBT in axilla usually located in the subcutaneous tissue and deep dermis layer of the skin and often blend with the skin appendage glands. This is the reason why the axillary nodule in our case can be lifted up freely from the underlying axillary soft tissue, unlike any lesion of the axillary tail of Spence due to its deeper location[7, 8].

Fibroadenoma (FA) occurs due to the proliferation of stromal and epithelial connective tissue of the terminal duct-lobular unit in the breast[2, 10]. Hormonal imbalance is thought to be the main factor responsible for its origin[4]. These connective tissues contained estrogen and progesterone receptors and an imbalance in estrogen level or hypersensitivity of breast tissue to estrogen results in excessive proliferation in the breast tissues. This hypothesis is proposed on the basis that the incidence of FA increases in puberty, pregnancy or in oral contraceptive users[1, 2, 4]. Though rare, EBT carries the risk of developing fibroadenoma or carcinoma[3, 5] because they exhibit a similar effect of hormonal changes like the normal breast tissues[6].

The FA are usually firm, rubber, have regular margins with variable sizes[2]. Differential diagnoses of axillary FA can are enlarged lymph nodes, sebaceous cyst, lipoma, vascular lesions, suppurative hidradenitis, neuromas, epidermal inclusion cysts, secondaries in lymph nodes, tuberculosis, cat scratch disease, torn muscle belly, malignancies or axillary tail of Spence[8, 9].

In Ultrasonography (USG), characteristically FA is seen as a round, hypoechoic lesion with smooth borders and normal surroundings[11]. Seo BF et al reported that FA typically having longer width, then height with an echogenic capsule. In our case, we dint advised USG of the axillary region due to financial constraint and clinically the lesion was looking benign with no other abnormality detected in the left breast and the axilla.

FNAC is a quick and cost-effective diagnostic modality for the diagnosis, but they can't distinguish reliably an FA in the breast from phyllodes tumour. The definitive diagnosis of FA can be made through Histopathological examination[1].

Cerrato F and Labow BI suggested that the FA mass should be observed for one complete menstrual cycle and if the mass persists then to perform imaging studies. They suggested that the mass should be managed with observation and follow up if it is small and static in size and if radiologically it is consistent with FA.

The majority of cases don't require treatment as FA usually shrink and disappear over time[2]. In a few cases, surgical intervention is recommended such as mass bigger the 2 -2.5 cm[2, 12], the rapid growth of the mass, patient request[2] ,patient age more than 35 years, immobile or poorly circumscribed mass, biopsy not definitive for FA[12].

Surgically, FA can be managed either with lumpectomy/ excisional biopsy or cryoablation. In a lumpectomy, the mass is removed and sent for HPE whereas in Cryoablation the mass is frozen using a probe, leading to the destruction of the cellular structure of the mass. The disadvantage of this procedure is that we can't send the sample for HPE hence it is always recommended to perform FNAC if the patient opts for cryoablation[2].

CONCLUSION

Fibroadenoma is the most common benign pathology in young females with the least chance of a malignant transformation. The patient should be aware of the possible ectopic sites and taught self-breast examination for early detection of the danger signs if any. For a physician, EBT should always be in the list of axillary lump's differential diagnosis.

N.B: The case was managed when the author was working in Bethany Hospital, shillong, India. He treated the case, made the design of the study and online search and reviewed related articles for the processing of the article

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Letter to the Editor

Late Principal J Mahanta – A relook into his life

1922 – 1995

Late Principal J Mahanta was popularly known as Jogesh Mahanta sir, but his name was Jogeswar Mahanta as per the records in his academic certificates. He was the first General Surgery FRCS from Assam. During his hey days, he was physically much taller and sturdier than an average indigenous person from Assam. He literally was a colossus in the field of General Surgery of the State for more than four decades since 1951. An oration 'Dr J Mahanta ASOICON 1978 Oration"- has been instituted by the Assam Chapter of the Association of Surgeons of India (ASI) in his memory and is delivered by the National President of the ASI at every annual ASACON.

Born in 1922, in the village Kathalmari, near Pathsala town in the most recently created Bajali district of Assam, Mahanta sir had a brilliant academic career. He had passed the Matriculation examination of the Calcutta University from the Bajali High School in the 1st division in 1942 with letter marks in Sanskrit.

Thereafter, he passed the Intermediate Science (I.Sc) examination under the Calcutta University from the Cotton College, Guwahati in 1944 in the first division with letter marks in Chemistry and stood 3rd amongst the successful candidates from Assam. He then went to the Calcutta Medical College with a scholarship from the Government of Assam and passed the MBBS of the Calcutta University in 1949. Notably, the State of Assam then had no medical college. The Assam Medical College (AMC), which was also the first one in the entire North Eastern region of our country, was started in Dibrugarh only in 1947, and its first batch of graduates passed out in 1952.

He joined as a Registrar of Surgery in the AMC in February, 1951. In September, 1953, he went to the United Kingdom with a scholarship from the Government of Assam and passed the FRCS, from the Royal College of Surgeons of Edinburgh in March, 1955. Returning to Assam, he joined the AMC as an Assistant Professor of Surgery in May, 1955. He was promoted as an Additional Professor in June, 1958 and later in September, 1959 became a Professor of Surgery in the AMC.

In February, 1962, he was transferred to the Gauhati Medical College (GMC), newly established in 1960, as the founder Prof. & HoD of Surgery. He had organized the department of Surgery along with its operation theatres in the Civil Hospital of then undivided Kamrup district in Panbazar. Currently it is functioning as the MMC (Mahendra Mohan Choudhury) hospital, which is an annexe hospital of the GMCH. Under the leadership of the founder Principal of the GMC, Late Dr S.N.Sarma, the ENT surgeon who incidentally was also the first FRCS in any surgical discipline from Assam, the PG degree and diploma courses were started in almost all departments of the GMCH within 8 years of establishment of the GMC. Mahanta sir, with the assistance and support of his colleagues like Prof.Dawka, Prof.Dasgupta, Prof Hamid Ahmed, Prof J Dutta and others, PG degree course(MS in Surgery) was started in the department in 1969 and the first batch passed out in 1971.

In 1971, he became the Vice-Principal of the GMC. In October, 1972 he became its Principal. During his tenure as the Principal, between 1972 and 1980, the construction of the present hospital campus of the GMC was started at Bhangagarh and continued. Due to a serious illness, he was on a long leave from January, 1981 to September, 1981. After expiry of his leave, he was transferred to the Silchar Medical College as its Principal and after 6 months, retired from there in March, 1982.

He was a Fellow of the Royal Society of Medicine, London and a member of the Medical Council of India (MCI) from 1972 to 1982. He was the Dean, Faculty of Medicine and a member of Executive Council of the Gauhati University during 1972 to 1982.He was a Member of the ASI since 1955 and a Fellow of the Academy of Medical Sciences of India since 1983. He was a member of the Governing Bodies of the Regional Institute of Medical Sciences (RIMS), Imphal, Regional Dental College, Guwahati and the Arya Vidyapeeth College, Guwahati.

He went to the UK again as a British Council Visitor in 1979.

He was the Chairman of the organizing Committee of the 38th ASICON (Annual Conference of the ASI) held in Guwahati in 1978. This was for the first and the only time since the establishment of the ASI in 1938 that the ASICON was held in Assam. Significantly, the Assam Chapter of the ASI was non-existent then, it was formed full 12 years later in 1990.

Social activities

He was a member of the Rotary Club of Guwahati. During his tenure as the Principal of the GMC, with the help of the Rotary and Inner Wheel Clubs, he had arranged many Eye and Health Care camps. He was the President of the Lachit Nagar–Dakhin Sarania Unnayan Samiti --a voluntary organization for three terms.

He died on 24th December, 1995.

Acknowledgement: *The writer is grateful to Mrs. Padmabati Mahanta, the wife of Late Principal J Mahanta, who is a very kind-hearted and generous lady and who had provided the inputs on which this write- up is based. He wishes her many more years of the active life that she is presently blessed with.*

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Instructions for authors

All articles should be e-mailed to the editor JASA at **journalasi.assam@gmail.com.** All manuscript should be prepared in **Microsoft Words (MS words)** only

Original articles should be prepared in 2500 to 3000 words. Manuscript should be prepared in following order: Title, structured abstract (containing Aim, Materials and Methods, Results, and Conclusion), Key words (3-4), Introduction, Materials and Methods, Results, Discussion and Conclusion (optional), References. Figures should be sent separately with legends to the figure. Figures and tables must be cited in the text.

Review article on a particular subject should be written by an author with reasonable knowledge and experience in the subject with 2500 to 3000 words.

Case reports should be prepared within 1500 words. Should be prepared in following segments: Title, Abstract (short running abstract), Key words, Introduction, Case report and Discussion, References. Conclusion is necessary for a case report.

References in text should be identified by Arabic numbers appearing in the text in superscript, for example [5] or [5-7] or in enclosure e.g.[1]. When a table or figure is first mentioned, its reference must continue the sequence but may be repeated randomly.

- *References in the text*. In general, it is not necessary to cite names of the authors of a study in the text (in addition to the identifying number) as it may disrupt the flow of the text.
- Papers which have been submitted and accepted for publication should be included in the list, with the phrase 'in press' replacing volume and page number.
- Standard journal eferences should be prepared as follows. Names and initials of six authors (if more than six, list three followed by et al.), title of paper, abbreviated title of journal, year of publication, volume number, page numbers. For example:

Myles PS, Chan MTV, Leslie K, Peyton P, Paesch M, Forbes A. Effect of nitrous oxide on plasma homocysteine and folate in patients undergoing major surgery. Br J Anaesth 2008; 100 : 780-6

- Chapter in a book. The reference for an article forming part of a book should be as below:

Wildsmith JAW. Local anaesthetic agents. In: Aitkenhead AR, Smith G, Rowbotham DJ, eds. Textbook of Anaesthesia. Edinburgh: Churchill Livingstone Elsevier, 2007; 52-63

Letters to the editor should be written as comments or query on previously published articles, interesting very short case report, or any suggestion that can improve the content and quality of the Journal.
New and innovative techniques can be sent as **"Surgical technique"**, or **"How I do it"**.
Interesting clinical/ surgical/ Radiological pictures can be sent.
Experimental study must produce institutional ethical committee clearance report.

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The Journal of

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