

Hydrocele - a pitfall diagnosis for scrotal swellings ?

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Abstract :

Inguino scrotal swellings are one of the most common surgical cases in outpatient department. Among the scrotal swelling, hydrocele is the most common and easily diagnosable case clinically. Other cases include epididymal cyst, hematocele, pyocele, lymphocele , varicocele[1]. In this study those cases which were misdiagnosed as hydrocele are taken into consideration. These cases showed all features of hydrocele which seemed to be pitfall in diagnosis. Intra operative findings were surprising by which post operative diagnosis changed altogether. Thus these cases were eye opener in diagnosis by history taking ,clinical examination and ultrasonogram.

Keywords : epididymal cyst, tunica albuginea cyst , lymphocele , hydrocele calculi

Introduction :

Scrotum is a cutaneous sac containing testicles, epididymis and spermatic cord. Layers of scrotum includes skin , dartos , external spermatic fascia , cremasteric fascia and internal spermatic fascia. Coverings of testis are tunica vaginalis , tunica albuginea and tunica vascularis . Benign intra scrotal lesions are classified as para testicular and intra testicular lesions, which are challenging in diagnosing clinically[2]. Para testicular lesions include epididymal cyst , tunica vaginalis cyst , tunica albuginea cyst , spermatic cord lipoma and others . Intra testicular cysts are testicular simple cyst ,hydrocele , spermatocele , varicocele , testicular epidermoid cyst , dermoid cyst and others[3] . In this study We elaborated different intra scrotal lesions based on history taking , clinical features and radiological examination. Many intra scrotal lesions mimic hydrocele which pose difficulty in diagnosing cases clinically as well as radiologically. Some cases are identified or diagnosed based on intraoperative findings only.

Materials and methods

Aims and objectives

1. This study is conducted to emphasize that intra testicular swellings can mimick as para testicular swellings
2. More vigilant history taking , clinical examination and radiological examination needed in order to come to a diagnosis
3. Open minded approach is necessary in performing scrotal swelling surgeries

4. This study also emphasizes that prior consent form needs to be taken in doubtful cases before planning for surgery.

Inclusion criteria

- All scrotal swelling cases which can be unilateral / bilateral
- All adult cases with transillumination positive finding
- Clinically benign swellings

Exclusion criteria

- Inguino scrotal swellings
- Femoral swellings
- Pediatric cases
- Transillumination negative swellings

Study procedure

All patients attending surgical outpatient department with complaints of scrotal swelling are evaluated with

1. History taking
2. Careful clinical examination
3. Ultrasonogram of scrotum in cases of doubt

Place of study

Vinayaka Mission's Medical College and Hospital, Karaikal

Period of study

January 2022 – September 2022

Total number of cases operated – 50

Results and discussion:

50 cases of scrotal swellings were operated during this study period. Out of 50 cases, 40 cases showed clinical signs of hydrocele including transillumination positivity, negative cough impulse and were able to get above the swelling.

10 out of 50 cases had variable history including acute onset of pain, history of trauma and transillumination negative in clinical evaluation.

Out of 40 cases which we diagnosed as hydrocele clinically without any doubt, 8 cases showed different morphology which were as follows

5 cases were epididymal cyst,

1 case of lymphocele ,

Interestingly 1 case had hydrocele calculi and

Another case had tunica albuginea cyst .

Discussion

Hydrocele is a collection of fluid between the layers of tunica vaginalis of testis . Hydrocele can be congenital or acquired types. Primary hydrocele and secondary hydrocele are the types of acquired variety . Aetiology of hydrocele include defective absorption or excess production as in secondary cause or interference in drainage of fluid or communication with peritoneal cavity as in congenital type . Among 40 scrotal swelling cases with transillumination positivity, 32 cases were hydrocele both pre and post operatively i.e in 80% of cases diagnosis remained unchanged. Remaining 20% cases showed different aetiology which are discussed below .

Case scenario 1 – epididymal cyst (5 cases)

A well built and well nourished persons of age around 35 to 40 years came to OPD with complaints of painless scrotal swelling were evaluated with history taking and careful clinical examination which showed transillumination positive , able to get above the swelling and there is no cough impulse. Size of the swelling neither small nor large. The patients were diagnosed to have hydrocele and evaluated for surgery. Intraoperative findings were epidermal cyst and testis found to be normal. Hence proceeded with cyst excision[4] .



case scenario 2 – epidermoid cyst .

Patient came with the history of progressive enlargement of left side of scrotum. There is no history of pain. There is no history of fever. There is no history of trauma. Patients had history of dragging sensation during activity. on examination transillumination positive though it is not brilliantly transilluminant swelling . Other features of hydrocele present. Intra operatively bluish hydrocele sac is not evident . Hence needle aspiration done and it is found to be turbid. Hence hydrocelectomy done . specimen was cut and content found to be fluid mixed with putty material. Histopathological examination revealed it was a epidermoid cyst[5][6].



Case scenario 3 – hydrocele calculi

A middle aged patient came with history of scrotal swelling - right side moderate swelling with history and clinical signs of hydrocele .Patient had history of dragging sensation . Patient is farmer by occupation and have heavy work activities . Patient had occasional pain which he ignored most of the time . Patient evaluated for surgery. Surprisingly , hydrocele calculi present which is very rare scenario . calculi is freely mobile inside hydrocele sac without any attachment. Reported incidence of scrotal calculi in the literature is around 4 % . Biochemical evaluation made and the constituent of the stone found to be calcium and phosphate and there is no cholesterol[7][8].



Case scenario 4 – lymphocele

A 55 year male patient attended OPD with right sided moderate sized scrotal swelling . Patient had history of trauma and transillumination is positive at varied places . ultrasonogram showed size of the testicle small in affected side compared to other side. Intraoperatively fluid seemed to be lymph. Fluid evacuated and proceeded with eversion of sac. Differentiation of lymphocele from septated hydrocele is found to be difficult even in ultrasonography.



Case scenario 5- tunica albuginea cyst

Patient came with complaints of swelling in left side of scrotum after trauma. History of pain present which is minimal. Transillumination is positive around the swelling . Ultrasonogram findings were minimal hydrocele with normal sized testis . Intra operatively tunica albuginea cyst is identified and cyst excision done[9].



Conclusion

This in our study, we highlighted the fact that all cases of scrotal swelling that we attend in OPD which are establishing the features of hydrocele are not purely hydrocele. In this study 20% of cases showed different aetiology. Other causes of scrotal swellings are to be considered including intra testicular and para testicular lesions . An open minded approach is necessary in endearing surgical procedure for scrotal cases[10]. Diagnosis can differ according to intra operative findings . Thus hydrocele which is a common scrotal case is seemed to be pitfall diagnosis in scrotal swellings. Thorough clinical evaluation is necessary though it is not fruitful in some scrotal swellings. Use of ultrasonogram is mandatory for deciding procedures in some cases. Verbal and written consent is mandatory in doubtful cases which must be included in pre operative evaluation because some intra testicular swellings may end up in orchidectomy.

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