

A Role of fine Needle Testicular Aspiration in Outpatient Department

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ABSTRACT

FNA of testis as not yet become a routine investigation in the field of cytology, although has gained its role to diagnosis in various organs. Testicular aspiration is simple and safe can perform without any complications and it requires no anesthesia, hence it can be done easily in OPD.

BACKGROUND

Aspiration smears yielded abundant material which was well preserved, and could easily read on light microscopy. In most of the instances especially inflammatory conditions one could approach the diagnosis easily, which avoided the biopsy.

METHODS

The entire work was carried out in outpatient department. FNA was performed using 10 ml syringe with 21 gauge needle, aspirated material was air dried and wet fixed? The smears were stained using cytological stains. Simultaneously biopsy was performed.

RESULTS

The study included both non-neoplastic and neoplastic conditions. Cytological findings were well correlated with histopathological findings. In few of the cases where biopsy could not be done, clinical findings with other ancillary tests are considered.

CONCLUSIONS

Testicular aspiration is less expensive affordable, time taken to entire Procedure is 5 to 10 minutes. Patient management is fairly good without or minimal complications. Therefore FNAC can be taken as sensitive and specific method of investigation in case of testis as seen in other organs.

KEYWORDS

FNAC, Testis, OPD, Investigation, Cytological

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INTRODUCTION

Fine Needle Aspiration (FNA) was first described in 1930 by Martin and also by 1933 by Stewart Zajicek developed the fashion so that moment it's a wide mode of cytological opinion. Orbant and person were settlers in FNA vivisection of the testis in men with fertility disorders. Despite the fact that this is a quick and accurate system without complications, it has not come a routine clinical system worldwide. FNA was performed without anesthesia using 21 and 23 hand needle. It was set up that 23 hand needle yielded inadequate material while 21 hand needle yielded slides with abundant cellularity and no complications.¹ FNA was harrowed immediately by vivisection. Cytologically two types of cells are set up in the testis, sedately and spermatogenic cells. Satori cells have round, vesicular nucleus which shows finely grainy chromatin and generally contains largenucleolus. The cytoplasm is pale abundant and vacuolated, with inadequately delineated borders. It's fragile, and thus naked capitals are common. Spermatogenic cells show transitional forms from spermatozoa to spermatozoa characterized by a depression in nuclear size and condensation of chromatin. The cytoplasm stains homogeneously basophilic and has well defined borders that are stylish stained in an air dried, may Grunwald-Giemsa stained smears.² Spermatogenic are generally uninucleate but sometimes are Binucleate or multinucleate. The capitals are round or round, slightly eccentric and dark or pale depending on their chromatin viscosity. The chromatin constantly has thick area peripherally, with a fine homogeneous chromatin pattern. The primary spermatocytes have a large nucleus with thread like or coarse chromatin. The cytoplasm if present is basophilic well delineated and analogous to that of other spermatogenic cells. Secondary spermatocytes generally they don't appear in a smear because they Trans figure incontinently into spermatids. Their capitals are much lower than spermatocyte and can appear as binucleate and chromatin is finely grainy cytoplasm is vacuolated. Spermatozoa have round capitals with veritably condensed chromatin. The tail is formed on the side opposite the acrosome and is most visible with papinicolaou stain. They also tend to be set up within the cytoplasm of seratoli cells (2) in view of the good correlation between histology of the testis and the cytology smears FNAB, the ultimate is gaining further fashion ability. The technique is simple, affordable and minimally traumatic. The aspirated material acceptable and shows excellent preservation. The colorful cell types can be linked by their distinctive morphology. Still secondary spermatocytes are delicate to demonstrate because of their short life span must be fitted then.^{3,4}

AIMS AND OBJECTS

The main end of this study is to insure that it can be fluently perfumed procedure like in any other organ as the perceptivity and particularity is accurate.

MATERIALS AND METHODS

From 1995 to 2015 (20 times) cases were appertained to OPD for FNA of testis. All cases were presented with complains of scrotal bumps aged between 30 and 58 times. On examination applicable particular and clinical findings were noted. Maturity of cases had bilateral testicular mass many of them were presented with fever and pain.^{5,6} After explaining the procedure and cheering the case, aspiration

was performed on both testis under sterile conditions but without original anesthesia. The testis, secured by the left hand the point of perforation corresponded to the middle portion of testis opposite the epididymis, aspiration was performed using 21 hand needles with 10 syringes. The aspiration was completed in 10 to 15 seconds with many gentle reverse and forth moments of the needle.⁷ The cases were allowed to rest for many minutes. Failure to rest after the procedure may lead to neurogenic shock thus cases rest for 10 twinkles after the procedure is explosively recommended. The fashion was well permitted aspirated material was acceptable to prepare the slides.^{8,9}

Exclusion Criteria

Aspiration and procedure not recommended in sitting position aspiration with 23 or any other hand needle yielded inadequate material.

Inclusion Criteria

Aspiration and procedure must be done only supine position. Aspiration with 10 ml hype and 21- hand needle is necessary the cases rest for 10 minutes after the procedure is explosively recommended.

RESULTS

Entire work was carried out in Dr. B.R Ambedkar medical council and hospital. Fifty cases were estimated aspiration was harrowed by vivisection and results were tabulated as shown in Table 1. Histopathological correlation could be done in maturity of cases, many seditious conditions where free up was delicate, hence opinion was made on cytological and clinical findings. In many cases there was no bilateral mass but cases presented with unilateral palpable bumps where aspiration was done in both neoplastic and non-neoplastic lesions were also included in this study.¹⁰

No of cases diagnosis	Cytology	Histopathology
35 Chronic nonspecific orchitic	25	10
08 Chronic nonspecific epididymoorchitis	4	4
02 Tuberculosis	2	2
04 Seminoma	4	4
01 Lymphoma	1	1

Table 1. No of cases Diagnosis Cytology, Histopathology.

Total no. cases 50 out of fifty cases ten cases vivisection wasn't performed, hence cytology is studied. These cases were clinically diagnosed as habitual Non specificinflammatorylesions. Two cases were diagnosed as tuberculosis on cytology which identified well with histology which was verified by PCR. Cytological smears revealed granulomas in back ground of caveating necrosis ZN stain and culture showed substantiation of organism. Here case presented with non-tender unilateral lump. Casket X-shaft appeared normal. Two cases were clinically presented as seminoma a definitive cytological opinion could be made only in cases of seminoma because of its characteristic cytological features. Cytochemical staining for origin cell alkaline phosphatase was helpful in diagnosing seminoma in cytological examination which was set up in the literature also. Accurate opinion can be achieved by careful light bitsy

evaluation although applicable immunotoxins can give individual backing if mistrustfulness persists. Only a case of carcinoma was also included in this study which was verified by cytochemical staining.

DISCUSSION

Posner and Huhner first used testicular perforation necropsies in the disquisition of mortal gravidity that examined unstained samples for spermatozoa. Latterly Fine needle of testis innovated by Orbant adperson was proposed as non-invasive fashion. Some authors tried to quantitatively dissect the population of origin cells sertoli cells and spermatozoa in the cytological smear so as to reach the opinion. The delicacy of the fine needle aspiration cytology was determined by comparing FNAC findings with that histological findings attained from open surgical vivisection was taken as the gold standard for the opinion. In the literature it's observed that cytologically one could interpret colorful cell types like origin cells and sertoli cells without any difficulty. Identification of colorful cell types in FNA smears is eased by typical morphology of seratoli cells maturity of spermatogenic cells, including spermatogenic, primary spermatocytes and spermatocytes. Comparing imprint and FNA vivisection its set up that latterly was more precious in hypospermatogenesis and normal spermatogenesis. FNAC has a to play in preoperative opinion and more so in assessment of lesions that's seditious or neoplastic and or malignant. The cytological features of colorful lesions are sufficiently specific for FNAC opinion. The procedure can be performed on an inpatient base and an exact and rapid-fire opinion can be offered. FNAC has important part in the discrimination opinion of epididymis nodes because it can rule out malice, diagnose other benign conditions and palliate the need for expansive surgical procedures. It's one of the important disquisitions in opinion and operation of gravidity and helps to separate obstructive cases which can be corrected surgically from non-obstructive cases. therefore it's a base line disquisition in gravidity can help in operation of surgical as well as medical causes of gravidity and also saves gratuitous, more invasive and precious examinations in cases of sertoli cell only pattern and atrophic patterns. FNAC serves the purpose with minimal side goods whereas vivisection may affect in fibrosis. It's a cost effective and safe system in assessing testicular lesions and averts the need for other premium examinations in numerous cases. The present study was designed to estimate to cytomorphological interpretation in preoperative opinion and to relate with histopathology. Sensitivity and particularity set up to be 97 and 100.

CONCLUSION

We set up that on cytology we could give nicely accurate opinion, which helped in patient operation. Since January 1994 to 2015 we entered variety of cases which included seditious benign and nasty conditions where cytological interpretation was excellent, many of seditious conditions like orchitis and tuberculosis opinion was made on cytology itself. Cytomorphological features were straight forward to approach the opinion, ZN stain for AFB was also done in many cases, which avoided gratuitous vivisection and helped in operation and follow up of cases. Hence aspiration cytology is rapid-fire further sensitive associated with no or minimum complication and less invasive.

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