MATERIAL
AND
METHODS
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Patients selection :-

The present study has been performed on the patients, admitted in the department of surgery, MLB Medical College, Jhansi, during a period of one year from Sept. 2002 to Sep. 2003 with complaints of prostatism, in whom there was found to be a suspicion of malignancy of the prostate gland, in the form of palpable nodule(s) or area(s) of induration, during digital perrectal examination.

Equipments and technique

The equipments for taking a biopsy from the prostate gland, used in this study are as follows :-

1. A glass syringe 20 c.c.
2. 22 guage, long thin needle.
3. A small bottle filled with 0.9% saline.
4. Another wide mouth small bottle filled with rectified spirit (95% ethanol).
5. Surgical gloves.
7. Thin glass slides.
**Procedure:**

The patient is explained the whole procedure and its importance regarding management of his problems.

He is advised to take a light evening meal and a mild laxative (two tabs. of dulcolax, night before the procedure). In the next morning, after passing the motion, the patient underwent digital perrectal examination to see whether the rectum is empty; if not so, an enema is given to him to cleanse the rectum. After that he is given a shot of injection gentamycin (80mg. IM). He is positioned either in left lateral or in lithotomy posotion.

The syringe and needle are wetted by aspirating one ml of 0.90% saline, which is subsequently returned to its source. (it decreases the frequency of clotted samples).

The palpating index ringer of left hand is well lubricated and inserted in to the patient's rectum and prostate gland is palpated to define the target sites, and then the finger is taken out. Now the needle-syringe assembly is guided along the finger to the target site and inserted into the prostate. There is a feeling of tissue resistance as the needle tip pierces the capsule of the prostate gland. After this occurs, 0.5- 1.0 c.c. of negative pressure is
created in the needle-syringe assemble by aspiration. And it is maintained throughout the collection. The needle tip is advanced and retracted about 15-25 times in slightly different planes in a cone shaped manner throughout the biopsy site using short strokes. The needle tip is maintained within the gland substance throughout the procedure to avoid faecal contamination of the aspirate.

If cellular material begins to accumulate visibly within the needle hub, the collection is considered to be completed. The negative pressure within the needle- syringe assembly is released before withdrawing the needle tip from the prostate gland, again, to minimize faecal contamination of the specimen, the needle-syringe is taken out of the patient’s rectum.

Transfer of material:-

The transfer of material from the needle to glass slides is done as follows: -

1. The needle is detached from the syringe.
2. The syringe then is filled with air by retracting the piston.
3. Needle is reattached to syringe.
4. The material in the needle is then expressed on to glass slides, the needle tip touching the glass slide.

5. Smears are made from a tiny drop of thus expressed material on the slide.

This procedure is repeated four times. The first collection is done at a distance from the suspicious area, generally the opposite lobe. The second is taken from a zone adjacent to but not within the most suspicious area. And the last two are taken from the most suspicious area.

**Fixation and staining:**

Air-dried smeared slides are placed in 95% alcohol immediately for 24 hours (after proper labelling) for fixation. Slides are then stained by haematoxyline, Giemsa or May Grunwald Giemsa (M.G.G.) stain by standard technique.

The findings or FNAC are later compared with the results of histopathological diagnosis. The material for which is obtained either by transrethral resection of prostate or by transrectal tru-cut core needle biopsy.