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The present study was performed on 124 patients of primary vaginal hydrocele, who attended the surgery O.P.D. at M.L.B. Medical College, Hospital, Jhansi and were treated by sclerotherapy as an outdoor procedure.

All the patients treated, were followed up for 4 months. The patients who failed to attend the O.P.D. for follow up were sent a written questionnaire. The results have been analysed by taking in consideration the answers sent by patients.

By this study it is clear that most of the patients who voluntarily adopted this form of treatment were active workers belonging to 15-35 years of age group.

Majority of the patients did not have any history of trauma inflicted over scrotum in the past as the cause of hydrocele. However 20.97% cases had definite history of trauma. Not surprisingly the larger the size of hydrocele, the greater the number of injections required. However in present study even for largest hydrocele a maximum of two injections & occasionally 3 injections were required.

None of the patients reported any serious complication like haematoma, infection etc., but almost all the patients had thickening of tunica vaginalis & epididymis.
Initially few cases reported of stinging sensation at the time of phenol injection, which was later prevented by injecting a small amount of local anaesthetic (2% xylocaine injection) in the sac before injecting the phenol.

None of the patients required hospital admission due to complications & none had to take time off work. In the beginning the patients were admitted in the ward & kept for observation to see the effect of increasing concentration of carbolic acid. After standardising the effective concentration of carbolic acid at 7%, the patients were discharged immediately after sclerotherapy.

Reaccumulation of fluid to almost the pre-treatment size occurred for about 2-3 weeks. The fluid gradually reabsorbed and this process was completed by 3 months in many cases. Recurrence was not much significant (21.87%) only even after the first injection. In cases, who showed persistent reaccumulation even after 4 months, procedure was repeated and result was found to be quite satisfactory. Only 3 cases required 3 injections. The recurrence rate was however, statistically significant with diluted sclerosant.

The recurrence following first therapy could be explained by the irritating nature of phenol over the mucous membrane of tunica vaginalis. Majority of the cases had no recurrence if treated again with a slightly higher concentration usually after 16 weeks.
Majority of the cases treated by higher concentration i.e. 7% of phenol in normal saline did not show reaccumulation, though the patients complained of some pain of moderate degree for few days. These patients were supported with analgesics and scrotal support for few days.

Thus sclerotherapy is a simple, safe, effective, very acceptable procedure to the patient and without significant complications. It can be carried out as O.P.D. procedure in the hospital or at any primary health centre. Carbolic acid used as sclerosing agent is easily available. In this study, this procedure proved to be highly effective for primary hydrocele with a cure rate 90%. Sclerotherapy in children was be avoided for the fear of causing orchitis or testicular atrophy due to a direct action of sclerosant. This was analysed in few cases by taking the biopsy of tunica, epididymis, ductus defers, and testis and secondly in bilateral cases by seminogram. The microscopic examination of the epididymis tunica & vas deferens showed variable degree of fibrosis, mono-nuclear infiltration, mucosal damage & haemorrhagic spots. Testis was found perfectly normal and without any structural damage. The testicular atrophy can occur only in condition when the technique of sclerosant injection is faulty i.e. it is has been injected into the testis.
John Hunter once wrote "No disease affecting the human body and requiring an operation for its cure has called forth the opinions and pens of surgeons so much as this disease. Each finds that every mode of operating except his own has failed".

In expressing our enthusiasm for sclerotherapy as an effective mode of treatment we are well aware of these words.

This method of treatment is presented as an additional method to the surgical treatment already available.

In this study sclerotherapy was used as primary method of treatment of hydrocele and not a secondary method in rejected or unfit cases for operation. We have treated 124 cases with this method. There have not been a single case of local or systemic complications except momentary pain at the time of injection of solution, which subsides after 10-20 minutes, swelling and hardness which persists for 3-4 weeks & subsides gradually by itself.

This procedure can be done as an out patient procedure and patient can go home immediately and resume his work next day. There is no need for admission and stay in the hospital and to be out of work for 1-2 weeks as after operation. There is also no risk of post operative complications e.g. haematoma formation & infection etc.
With 7% concentration of phenol, most patients required only one or at the most two treatments. There was no need for repeated treatments as indicated in earlier reports (Nash, Moloney). This saves patients repeated visits to the hospital and time of work. Even very large hydroceles (upto 1000 cc) have been cured by this method, operation not being required in any case.