

Repair of Inguinal Hernia of Childhood as an Outpatient Procedure

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At present the repair of inguinal hernia in childhood is done quite commonly in the United States as an outpatient procedure. That is, the children are not admitted to hospital but instead come to the operating room from home and are thereafter sent home from the operating room. The reasons for this are primarily financial; hospital care is very expensive and increasingly so. But if the method was feasible in Nepal there would be several other advantages as well:

- 1) the hospital bed shortage in the Kathmandu valley is becoming a severe problem; the cancelling of elective surgical admissions at Shanta Bhawan Hospital because of bed shortages is becoming a recurrent theme.
- 2) if children and infants with hernia repairs can be cared for post-operatively just as well at home as in hospital, then it makes sense to save our nursing staff for patients who really need nurses.
- 3) the economic and social burden entailed for many poorer families when one parent must stay in hospital with the child probably means far less children will receive surgical correction in the long run.
- 4) the risk of nosocomial infection in Nepal.

Over a year ago at Shanta Bhawan Hospital we started cautiously to repair infants and children's hernias when possible on an out-patient basis.

Method:

The children done as outpatients were examined in the outpatient department and

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given date a to come for operation. The parent was instructed to bathe the child completely the day before surgery and instructed to allow the child no food or drink for at least four hours before arrival at hospital. They were told not to come if the child had a cold.

Laboratory work consisted of a urinalysis, hematocrit and commonly an ESR (erythrocyte sedimentation rate). If the hematocrit was unusually low, operation was commonly delayed, oral iron and vitamin therapy was initiated and usually worm medicine was given. When feasible this was given postoperatively often as well. Only rarely was operation ever delayed. In the case of impetigo however operation was delayed until the skin was clear—but in no case was this more than two weeks.

Anesthesia was usually done with open-drop ether but if the anesthesiologist was ill ketamine intramuscular (4mg./kg.) with local Xylocaine 1% served as well.

High ligation of the sac teased out unopened from the spermatic cord thru an incision in the external oblique and not opening the external ring was the routine. To rule out gender problems a fimbriated salpinx thru the opened sac was always indentified in females. Skin closure was done subcutaneously so that no sutures needed to be removed. Children three years of age or older were often given an appropriate dose of paracetamol for p. r. n. use, a total of 48 hours only post-operatively. Mothers of younger children were instructed simply to cuddle and feed the patients when they cried. A period of at least four hours observation post-operatively was routine. Children were then allowed fluids—water only for older children advancing to regular diet the following day and breast milk for infants. Parents were warned to expect one episode of vomiting if ether had been used. They were asked to leave the wound clean and dry. Sometimes a small dressing was used (to fend off parents fingers), sometimes no dressing was used. All patients were scheduled to be re-examined in the outpatient department by one week postoperatively. There-after they were referred back when appropriate to the "under 5's" clinic for subsequent follow-up.

Results:

In a twelve month period (1980) there were 58 infants and children who had inguinal hernia repaired. This is twice the number from the previous year (29). Ages ranged from one month to ten years with 41 of the children being less than three years of age. The children ranged from 3 to 20 Kg. Only 4 of the patients were females. 36 of the children

were treated on an outpatient basis only. 5 children were also admitted for the convenience of families pre-op but were sent home the same day post-operatively. 7 Children were kept more than one day post-operatively in hospital.

There were 32 right, 18 left and 8 bilateral inguinal hernias. Only 2 of the hernias were complete, one was recurrent (from a previous surgeon). There were 2 children with incarceration of their hernias: these were manually reduced and operated two days subsequently.

There were no deaths in the series. There were no post-operative wound infections.

Follow-up ranged from only one day to fourteen months, but all children except one returned for follow-up at least once. The one child who did not return for follow-up was the only non-Nepali in the series. This was a Dutch boy from Surkhet who was two years old being treated with a truss (horror !) until he was old enough for surgery (again horrors !), but this was proving, as it has proved since time immemorial, to be impractical for the mother. They were asked to return from that distance only if there were a problem.

However, there were many pre-operative problems. 5 patients were specifically described as malnourished. 2 children had diarrhoea at the time of surgery and many more had worm infestations. Otitis media was present in 3 children but being treated by the time of surgery. 4 other children were under treatment for impetigo and 2 were recovering from pneumonitis in the previous month. Antibiotics were used for these pre-operative indications but not otherwise.

DISCUSSION AND SUMMARY:

The answer to our question, "Is it culturally feasible in Nepal to do hernias in children on an outpatient basis?" appeared to receive a resounding affirmative; there were no infections and no recurrences.

Is it providing better care for the child with the hernia? With the doubling of our case load it would appear the method has more parental acceptance.

Although only two children had incarcerations, this is ample reason to confirm the policy that hernias in infants and children should be treated surgically when recognized.

Although the health problems in Nepali children often appear formidable when

undertaking elective hernia repairs, with proper concurrent therapy we have never felt constrained to delay hernia repair more than two weeks in any child thus far.

ABSTRACT:

58 infants and children were operated for inguinal hernia in a recent 12 month period. 41 of the children were discharged home following surgery. In no child did an infection, recurrence or other recognizable complication occur. Not only is outpatient care of the child operated for inguinal hernia feasible in Nepal, it appears to have great cultural acceptance, doubling our number of operations over the previous year.

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