

TRICHOBEZOAR

A Nursing Care Study

Trichobezoar, an unusual case, was treated in C.S.I. Hospital, Chickballapur, Karnataka, during October 1987. This care study is written by Miss R. Beula Anjil Kodi, then a 3rd year Nursing Student at Sr. Morch School of Nursing, with the assistance of Miss Dorothy A. Whyte, Visiting Lecturer from Scotland.

This is the account of an unusual case treated in a small rural hospital.

Sunderi* was a small, thin 10-year-old girl weighing 22 kgs., admitted with the history of vomiting after food for the previous 8 months. She had anorexia, nausea and abdominal distension. A firm mass could be palpated in the abdomen.

Social History

Sunderi lived with her parents, brother and four sisters. She is the second child in the family. The parents work in their fields and own a house. Sunderi never attended school, although her sisters and brothers did so. She used to help to run the house and look after the younger children. She was frightened of monkeys. Her family members are non-vegetarians and Sunderi had no particular food fads. They are Hindu. The family came from Andhra Pradesh to the hospital.

On admission Sunderi was quiet and rather withdrawn. She seemed to be frightened of the Nursing staff and required reassurance from her parents before she would accept any Nursing procedures. Gradually she gained confidence in R. Beula Anjil Kodi, the student assigned to her care, and then would accept care only from her.

The first few days involved examinations and in-



Fig. 1

* Pseudonym given to preserve confidentiality.

vestigations** (Fig. 1). A barium swallow revealed a large mass in the stomach. Sunderi was posted for laparotomy, the stomach was opened and a large hairball, shaped in a perfect cast of the stomach, was removed. The Nursing care is described on the next two pages.

Health Teaching

Sunderi was fully immunised and her relatives were able to provide a nutritious diet. It was hoped that with the removal of the mass from her stomach her appetite would increase considerably. The need for treatment of hookworm and the relationship of this condition to faecal contamination of soil was explained.

Discussion

As can be seen from the Nursing Care Plan, Sunderi's recovery after the operation was relatively uneventful. Her sutures were removed on the 10th day and the parents were asked to bring her to the out-patient clinic after a month. Her case, however, raised many questions, and encouraged some research which will be described and discussed.

Foreign Bodies in the Stomach and Duodenum

In most cases swallowed foreign bodies in the stomach and duodenum cause no symptoms and progress down the alimentary tract to be passed spontaneously without discomfort. Some patients complain of vague abdominal discomfort, particularly if there is anxiety by knowing that the object is in the abdomen. Patients with long-standing foreign bodies may have a sense of heaviness and discomfort in the epigastrium, anorexia and malnutrition. If the object becomes impacted, severe obstructive symptoms with abdominal pain and distension follow.

Trichobezoar

This consists of a large quantity of hair of varying lengths, firmly matted together, forming when fully developed a perfect cast of the stomach, and even part of the duodenum. There may be fibrous substances such as animal hair, cotton threads, string or vegetable fibres. Usually, it is dark greenish, brown or black in colour with a glazed slimy appearance and a nauseating odour, presumably due to the decomposition of the various foods and residue intimately interspersed in the hair. In Sunderi's case there was only human hair to be seen and the Trichobezoar seemed remarkably dry and non-odorous, though amazingly large.

** The hookworm infestation was treated with mebendazole 100 mgm. bd. for 3 days.

Problem	Nursing Care	Rationale	Evaluation
Nausea and vomiting	Anti-emetic drug Metoclopramide 5 mgm. given intra-muscularly	To prevent vomiting	Vomiting persisted
Abdominal Distension	Encouraged to walk and play with other children	Movement can reduce gaseous distension	Distension partially reduced
Anorexia	Small meals and nutritious fluids encouraged	To maintain good nutrition and hydration	Took small amounts of food
Anxiety about surgery	Explained the child and parents about anaesthesia, operation, post-operative pain, treatment and exercise. Surgeon discussed about operation and obtained consent from father.	Information helps to relieve 'fear of the unknown'. Legal protection	Child seemed less anxious
Potential infection	'Chain' removed from around child's neck, bath given, skin preparation done	Removal of micro-organisms helps to prevent infection during surgery	Parents initially objected to this but accepted explanation
Preparation of alimentary tract	<i>Stomach wash</i> was given evening before and morning of operation, with normal saline. Soap and water enema given.	To empty and clean stomach before surgery To prevent evacuation of bowel when sphincter relaxes under anaesthesia	Barium and food removed in 1st return; second washout given till return was clear in keep the bowel clear and clean
Immediate preparation for surgery	Voiding encouraged; premedications given are : Atropine sulphate 0.6 mgm. and Pentazocine 25 mgm. given intramuscularly	To prevent voiding under anaesthetic. To reduce salivary secretions and risk of inhalation and to reduce pain	Voided
	Temperature, Pulse and Respiration checked; T37°C; P120/mt; R20/mt	To assess condition pre-operatively	Vital signs normal and stable
	Blood Pressure 90/70; Records and X-ray sent to OT with Sunderi; identity checked	To provide information and prevent error in OT	
<i>Post-Operative :</i>			
Airway	Sunderi was Nursed in semi-prone position, with head turned to a side	To allow drainage of secretions and to maintain a clear airway	Breathing was normal

Problem	Nursing Care	Rationale	Evaluation
Potential haemorrhage or infection	T.P.R. checked hourly : T 37.5°C P 134/min. R 22; BP 110/80mm Hg. observed for haemorrhage	To detect early signs of complications and to monitor progress	Vital signs stable; No haemorrhage
Nutrition & Hydration	Intravenous infusion dextrose 5% in Normal Saline given (540mls. in 4 hrs)—recorded and observed	To maintain hydration	Active and hydrated
Healing of stomach	Naso-gastric aspiration hourly on the 1st day	To keep the stomach empty and to aid in healing	Amount of aspirate gradually decreased
Pain	Paracetamol 2 ml. given IM. then 1 tablet S.i.d. Buprenorphine 300 mcg. IM. given on first post-operative night	To relieve pain and promote rest	Slept well.
Ambulation	On the day of operation position changed frequently : 1st day child was helped to sit and dangle legs over side of bed; second day helped to walk a little	To prevent complications, particularly chest infection	No respiratory complications developed
Retention of urine	On 1st day urinary catheterization done to relieve retention; on 2nd day the child was helped to walk to bathroom to void	To relieve bladder distension To encourage normal micturition	Voided normally
Personal cleanliness	Bed-bath given on 2nd post-operative day, then she was encouraged to have bath in the bathroom daily	To promote comfort and cleanliness Given by nurse as mother was not in attendance	Cleanliness maintained and good relationship between nurse and child established
Wound care	Theatre dressing left for 1 week then daily dry dressing till removal of sutures on 10th day	To prevent infection of the wound	Wound was healing normally
Nutritional needs	Oral fluids given after 6 hrs; soft foods, eg., rice and vegetables given from 2nd post-operative day; iron & vitamin supplements given	To meet protein and energy requirements for healing, growth and development	Fluids, milk, then normal diet tolerated well without nausea or vomiting
Communication needs	Communication encouraged while nursing care being given; encouraged to talk with other children apart from relatives	To help her express her and to relieve stress thus aiding recovery	Child began to smile & talk freely

Pica

Pica is the term given to a perverted appetite resulting in craving for paper, hair, charcoal, etc. It is mentioned by Achar in relation to hookworm infestation. Jolly links it with iron deficiency anaemia. Sunderi's stool specimen did reveal ankylostoma duodenals ova but she was not anaemic and was otherwise asymptomatic. In view of the widespread nature of ankylostomiasis in this part of country it did not seem to the writers to give an adequate explanation for the behaviour of this child, who must have been eating her hair for a very considerable time to have accumulated such a hairball; the hair on her head was not obviously depleted. Consideration was given to psychological factors.

Psychological Factors

Dr. M.S. Bhatia and P.K. Singhal say that Trichophagia or compulsive hair pulling if eaten (trichophagia) can lead to intestinal obstruction, persistent vomiting, heaviness of abdomen, diarrhoea, etc. If one accepts this phenomenon as a behaviour disorder it is logical to look for signs of insecurity. On questioning the parents it was found that Sunderi had refused to join school when she was 5 years of age, and could not be persuaded to attend although her siblings did go to school. She worked in the house and the field and played with younger children. Birth order may have been a factor; as the second child with younger siblings there may have been sibling rivalry resulting in separation anxiety. This may have been strong enough to prevent her attending school. Assessment of her behaviour in hospital suggested that she was fearful, anxious, requiring considerable reassurance before she could accept any Nursing procedure. Her parents reported about her fear of monkeys which was developed in early childhood and still persisted; she ran away whenever she saw one. This was also noticed during her post-operative recovery; she ran inside when a monkey appeared beside the ward. Her parents were of the opinion that this fear was due to some 'black magic' or 'evil eye'. Such a fear might be described as a phobia, i.e., an excessive or irrational fear of a particular object or situation. As is usual in such cases, the parents gave no history of their daughter eating her hair; Sunderi did not admit to it and in fact this explanation was never accepted by the family. They preferred to think of it as an 'evil eye' manifestation.

Conclusion

Physically Sunderi had a good recovery from a successful operation. She was seen at follow-up clinic and seemed well although there was a slight discharge from suture line. Further psychological assessment, however, was not possible, since there is not ready access to child psychiatry services in a rural area and, the parents did not accept that their child had a problem, referral was not appropriate. It seems likely that the approaching developmental stage of adolescence will be stressful for a child of Sunderi's personality. Since she does not come from

the local area however she could not be followed up by our community health team, and some of our questions must remain unanswered at present. The condition is so rare that it has not, to our knowledge been systematically researched, but if cases are documented it may be possible over time to identify common factors which could throw more light on causation and appropriate management.

Laboratory Investigations

Blood	Result	Normal Values
Haemoglobin	13 g	12-15.5g
WBC	10,600/cu.mm.	7000-10,000/cu.mm.
Neutrophil	70%	70-75%
Eosinophil	3%	1- 5%
Lymphocytes	27%	20-25%
Urine :		
Sugar	Nil	Nil
Pus cells	1-2	Nil
Stool :		
Ova	Anky	Nil
Cyst	Nil	Nil

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