



Why We Still Do Barium Studies

-by Dr. G R Jankharia

Barium studies are no longer at the top of any referring doctor's list. Only when other tests are negative, are barium studies ordered as a last resort. Moreover, young gastroenterologists and physicians are no longer well versed with barium finding.

There are still however a few good indications for barium studies.

Barium Swallow:

In oropharyngeal dysphagia, barium with cine studies for the act of swallowing is very informative.

Achalasia of the crico-pharyngeal muscle (Fig. 1), pharyngo-oesophageal web, Zenker's diverticulum and stasis in the vallecula and pyriform fossa due to neuromuscular dysfunction are well depicted.

Esophagus, Stomach and Duodenum:

In case of vomiting and discomfort in the upper abdomen due to intermittent volvulus of the stomach (Fig. 2), the barium study is diagnostic while endoscopy may often be negative. Early achalasia cardia (Fig. 3) and sliding as well as para-oesophageal (Fig. 4) hiatus herniae are well documented. Post-operative changes including fundoplication often need barium studies for holistic evaluation.

Small Bowel Enema (Enteroclysis):

Enteroclysis is the gold standard for small bowel mucosal abnormalities as in Crohn's disease (Fig. 5) and tuberculosis and subacute intestinal obstruction due to strictures (Fig. 6). Since enteroclysis is a dynamic procedure, motility disorders can be evaluated and compression to demonstrate soft strictures and adhesions can be performed.

Barium Enema:

In a pediatric patient with chronic constipation, barium enema to rule out or detect Hirshsprung's disease is very helpful (Fig. 7).

Fig.1

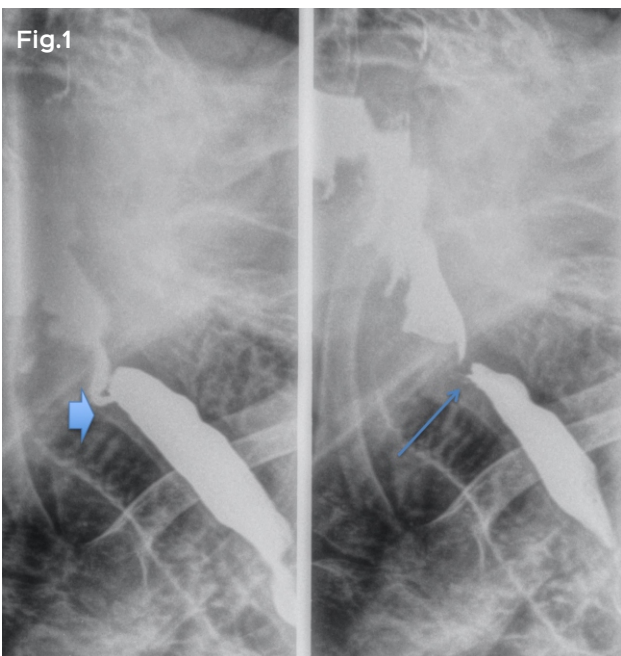


Fig. 1: Barium swallows show crico-pharyngeal hypertrophy (arrows).

Fig.2



Fig. 2: Barium study of the stomach shows volvulus (arrow).



At a glance

- ✂ Barium studies still have their place in the evaluation of the pathologies of the gastro-esophageal system
- ✂ They are especially useful for motility disorders and in the small bowel

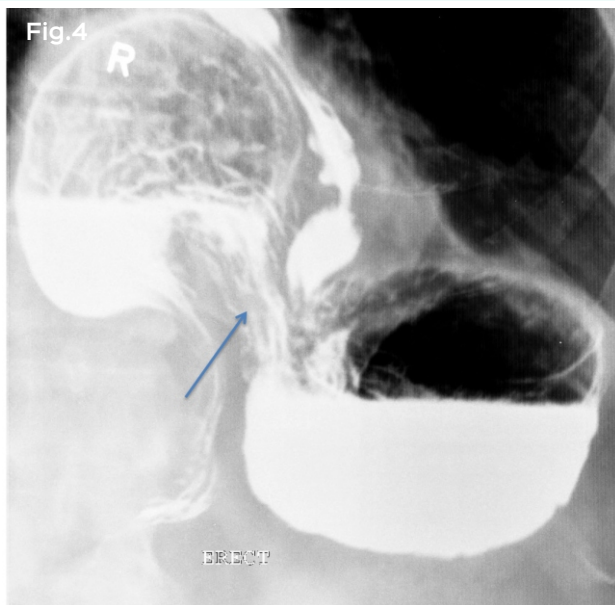


Fig. 3: Barium swallows shows classic achalasia cardia (arrow).

Fig. 4: Barium study of the stomach shows a large para-esophageal hernia (arrow).

Fig. 5: Enteroclysis study shows classic rose-thorn ulcers (arrow) of the small bowel in a patient with Crohn's disease.



Fig. 6: Enteroclysis shows a post-tuberculous stricture (arrow).

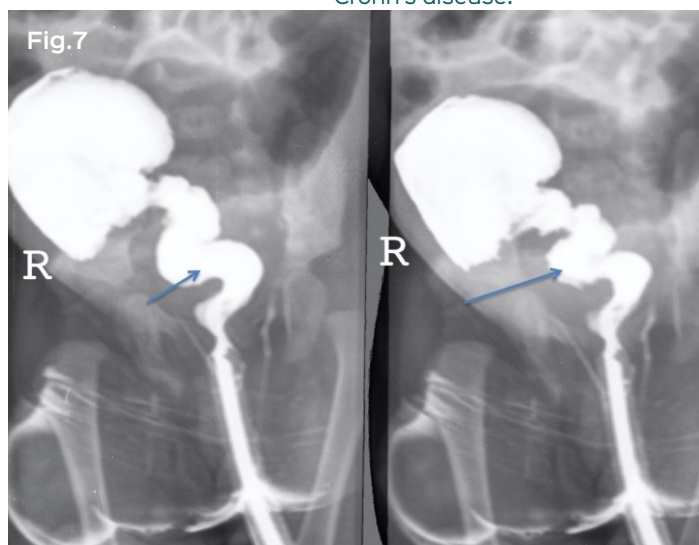


Fig. 7: Barium enema in a child shows typical changes of Hirschsprung's disease (arrows).

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Bhaveshwar Vihar, 383, S.V.P. Road, Prarthana Samaj, Charni Road, Mumbai 400 004.