

Meckel's Diverticulum

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Meckel's Diverticulum is a common cause of uncontrollable gastrointestinal bleeding in children. The Meckel's Diverticulum is usually located proximal to the ileo-cecal valve. Short of using exploration, detection is virtually unsuccessful unless one uses scanning with ^{99m}Tc -pertechnetate (1).

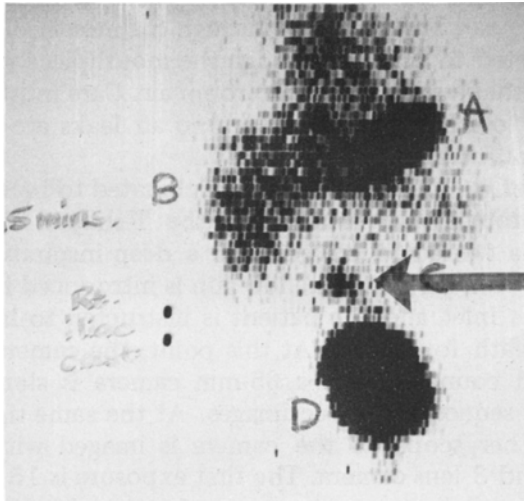


FIG. 1. Scan made with ^{99m}Tc -pertechnetate showing (A) stomach, (B) duodenum, (C) Meckel's Diverticulum, and (D) bladder.

Even then, however, detection is very time consuming and tedious, especially in infants.

We have used the procedure first developed by Duszynski (1) to scan Meckel's Diverticulum in children and infants. Patients are administered $100\ \mu\text{Ci}/\text{kg}$ of ^{99m}Tc -pertechnetate intravenously after premedication with oral perchlorate. (Infants are given dissolved perchlorate by bottle.) Anterior and posterior views are obtained immediately, 15 min, 30 min, 60 min, 90 min, 2 hr, and 3 hr after injection of the radionuclide.

Although this procedure is an excellent one for detecting Meckel's Diverticulum, we must be aware that only about 20 percent of Meckel's contain parietal cells in the ulcerated gastric mucosa, and in the remaining 80 percent there is no uptake of pertechnetate.

Reference

1. Duszynski DO, Jewett TC, Allen JE: Potentialities of abdominal scanning with ^{99m}Tc -sodium-pertechnetate. *J Nucl Med* 11:628, 1970

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