

possibility of fetal neuromuscular disease which prompted clinical examination followed by genetic testing of the mother which confirmed the myotonic dystrophy gene expansion. Prenatal diagnosis in fetus was not attempted because of the late presentational and the genetic confirmation in mother.

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## Laparoscopy in Suspected Meckel's Diverticulum: Negative Nuclear Scan Notwithstanding

A one-year-old boy was admitted with painless lower gastrointestinal bleeding since one week. Investigations done at another hospital showed a hemoglobin of 6.2 g/dL for which blood transfusion had been given. The child had also undergone upper and lower gastrointestinal endoscopy and a technetium<sup>99m</sup> pertechnetate scan, which were all reported as normal. At admission to this hospital, physical examination revealed no abnormality. The clinical possibility of Meckel's diverticulum was discussed with the parents and a diagnostic laparoscopy was offered. Laparoscopy using a 5 mm umbilical port revealed a Meckel's diverticulum. Using two 3 mm secondary ports the diverticulum

was delivered out of the abdomen through the umbilical incision. A wedge resection of the diverticulum with intestinal anastomosis was done.

Meckel's diverticulum is the most common congenital anomaly of the gastrointestinal tract involving the small bowel(1). In infants and younger children, painless lower gastrointestinal bleed is the commonest manifestation. The bleeding may be brisk and blood transfusion is often required. A pre-operative diagnosis of a Meckel's diverticulum is often difficult to make.

Routine evaluation of these children would include a hemogram, endoscopic evaluation of the gastrointestinal tract and a radioisotope scan. Abdominal ultrasonography is commonly performed but rarely helps in diagnosis. Barium studies have little utility. The most useful method to detect a

Meckel's diverticulum is the technetium<sup>99m</sup> pertechnetate scan. A positive scan depends on tracer uptake by heterotopic gastric mucosa, which is present in only 50% of cases(1). Presence of ectopic tissue other than gastric, recent barium study, a small diverticulum or hemorrhage washing out the isotope, are all known to lead to false negative results. The negative predictive value of the scan is a low 0.74(2). The sensitivity and specificity of Meckel's scan is approximately 85% and 95% respectively(1). A combination of pentagastrin and H<sub>2</sub> receptor blockers(3) and, more recently, glucagon has been used to improve results of nuclear imaging. The low negative predictive value, therefore, necessitates surgical evaluation despite the scan result.

Laparoscopy in children as a diagnostic tool in gastrointestinal bleeding of obscure origin holds good promise(4). Laparoscopy is, both, diagnostic and therapeutic. The whole of the small bowel can be systematically inspected and the diverticulum can be easily identified. With the aid of the laparoscope, extracorporeal or intracorporeal resection(5) may be performed and the need for a formal exploratory laparotomy avoided. Laparoscopy also scores over laparotomy in terms of smaller incision, less pain and earlier recovery.

A high index of clinical suspicion is important, particularly, in patients with a negative Meckel's scan and we recommend

that laparoscopy must be advised in all such cases.

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