RECYCLING OF STOMA LOSSES VIA A MUCOUS FISTULA
Supporting information

What evidence is there that this approach is beneficial?

A 2020 systematic review identified 11 relevant studies (including a total of 197 neonates). Within a single study, four neonates developed major complications; however, the procedure was well tolerated without major complications in 10 of the 11 studies. A mortality of nine patients during mucous fistula refeeding highlights the burden of disease within the study population; however, of these, only one was directly attributable to mucous fistula refeeding. Minor complications were seldom quantified. Three studies demonstrated a higher rate of weight gain and shorter parenteral nutrition support versus controls. Neonates who underwent mucous fistula refeeding had lower chance of anastomotic leak and quicker progression to full feed after reversal versus controls. The review authors concluded that current evidence suggested benefits of mucous fistula refeeding; however, an international consensus is yet to be reached on the optimal method

A retrospective study of 92 neonates with necrotizing enterocolitis necessitating surgery for the formation of stoma with mucous fistula found that those in the refeeding group showed less bowel ends size discrepancy than those in the non-refeeding group (25% vs. 53% p=0.034) and less postoperative anastomotic leakage (3% vs 20%, p=0.029) [Lau, 2016]. Fewer refeeding group patients developed parenteral nutrition related cholestasis (42% vs 73%, p=0.045) and required shorter parenteral nutrition support (47days vs 135days, p=0.002). The mean peak bilirubin level was higher in the non-refeeding group (155 µmol/L vs 275µmol/L, p<0.001). No major complication was associated with refeeding. The authors of the study concluded that “Mucous fistula refeeding is safe and can decrease risk of anastomotic complication and parental nutrition related cholestasis. It provides both diagnostic and therapeutic value preoperatively and its use should be advocated”.

Ghattaura H, Borooah M. Jester I. A Review on Safety and Outcomes of Mucous Fistula Refeeding in Neonates. Eur J Pediatr Surg. 2020: Epub ahead of print

Lau EC, Fung AC, Wong KK et al. Beneficial effects of mucous fistula refeeding in necrotizing enterocolitis neonates with enterostomies. J Pediatr Surg. 2016;51:1914-6

Evidence Level: IV

Last amended December 2021
Last reviewed December 2021