

PMO-078 TECHNICAL FEASIBILITY: MECHANICALLY-RETAINED LOW-PROFILE BUTTON GASTROSTOMY

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¹J R Cain,* ¹T Westwood, ²L Wilbraham, ¹D W Edwards, ¹H U Laasch. ¹Department of Radiology, The Christie NHS Foundation Trust, Manchester, UK; ²Department of Nutrition and Dietetics, The Christie NHS Foundation Trust, Manchester, UK

Introduction A replacement button-gastrostomy has been developed, retained by a mechanical internal fixator formed by loops of the tube shaft. When stretched by the introducer/extractor tool it returns to a completely flat tube profile, avoiding the need for oversizing the stoma, reducing pain on exchange and potentially increasing the tube dwell time beyond the recommended 3 month intervals of balloon tubes. We assessed whether the prototype is applicable to clinical practice.

Methods Suitable patients referred for replacement of a conventional gastrostomy were invited to receive a 14Fr prototype instead of a 12Fr balloon gastrostomy requiring a 16Fr track. Gastrostomies were inserted without local anaesthesia, unless required for removal of the existing PEG/RIG. Regular follow-up at increasing periods was performed and difficulties and complications recorded. Informed consent and approval by the institutional review board was given, the device is CE marked.

Results All tubes were sited and subsequently exchanged without difficulty and essentially pain-free. Two patients had PEGs removed fluoroscopically under sedation prior to siting the tubes, 14 patients with an existing balloon tube found the exchange from much less painful. Initially the prototypes were changed routinely after 6 months. At present they are left until the patient indicates a need for review. No complications occurred during the insertion of the feeding tubes. No accidental displacements occurred. Seven



Abstract PMO-078 Figure 1

feeding tubes (47%) are still in situ after a median of 250 days. Of the remaining tubes five were removed due to end of treatment, 4 were changed back to a balloon tube (two patient preference, two for infection and leakage). 14/16 patients indicated a clear preference for the prototype because of lack of balloon-maintenance, reduced number of tube changes and painfree tube removal and insertion.

Conclusion The feasibility study proved the mechanical retainer to have sufficient internal fixation with much reduced need for maintenance and applicable to clinical practice. Dwell time can easily exceed 1 year and patient acceptability was much higher than expected. The reduced number of tube changes and lack of pain of these would be particularly important in children.

Competing interests J Cain: None declared, T Westwood: None declared, L Wilbraham: None declared, D Edwards consultant for: Vygon, H U Laasch consultant for: Vygon, Kimberley-Clarke.

PMO-079 FEASIBILITY OF BEDSIDE NASOJEJUNAL TUBE PLACEMENT "BLINDLY" OR USING AN ELECTROMAGNETIC DEVICE

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K H Smith,* T Smith, Z Leach, S Harding, M Stroud. NIHR Biomedical Research Unit (Nutrition, Diet & Lifestyle), University Hospitals Southampton, Southampton, UK

Introduction Some enterally fed patients require placement of a nasojejunal tube (NJT) which is often considered to need time-consuming, costly radiological or endoscopic input which can delay feeding commencement. This study examined the feasibility and accuracy of bedside NJT placement.

Methods As part of a study comparing nasogastric tube (NGT) with NJT feeding in dysphagic stroke, we assessed bedside NJT placement using a "blind" technique (standard 140 cm 8Fr tube) or an electromagnetic tracking device (Cortrak® with compatible Corflo® 8Fr tubes, donated by MerckSerono) to identify tube shape and hence likely position in the GI tract. In the parent study, 19 patients were randomised to receive an NJT and for the first 10, placement was blind while for the last nine the Cortrak® was used. The basic technique used to pass tubes was the same in both groups; tube measurement against patient's xiphisternum to ear to nose to anticipate length needed for tip to be in the stomach; passage of the tube into the stomach; then advanced using gentle clockwise torque (a "flick" may be felt when the tube traverses the pylorus). Additional manoeuvres such as repositioning the patient, flushing small amounts of air/water, waiting 10 min before tube advancement and prokinetic administration were used as necessary. Correct placement in all cases was confirmed using aspirate from the stomach (acid pH),¹ aspirate from the small bowel (neutral/alkaline pH if obtained) and abdominal x-ray (AXR). Tubes placed using Cortrak® showed the expected pattern of small bowel placement on the tracking screen.

Results Bedside NJT placement was successful in 17 (89.5%) of the 19 patients—9/10 (90%) of blindly placed tubes and 8/9 (89%) Cortrak® placed tubes. All 17 NJTs were confirmed as correctly positioned on abdominal x-ray.

Conclusion NJTs can be safely placed at the bedside by trained staff in stroke patients to reduce endoscopy and radiology costs and achieve faster commencement of feeding. Placement can be achieved using a blind technique but use of an electromagnetic device can probably obviate the need for an AXR to check position.²⁻⁴

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