



Gastrostomy in MND

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Gastrostomy in MND

MND causes progressive muscle wasting and weakness which can lead to difficulty swallowing (dysphagia) and weight loss.

- ▶ A gastrostomy provides an alternative feeding route.
- ▶ It is a feeding tube that is inserted directly into the stomach through the abdomen.
- ▶ Enables the delivery of nutrition, fluids and medications directly into the stomach bypassing the mouth and throat.

Types of Gastrostomy used in MND

- ▶ **PEG - Percutaneous Endoscopic Gastrostomy**

PEG is the preferred method of gastrostomy when someone has good respiratory function. Usually performed with sedation although can be done without.

- ▶ **RIG - Radiologically Inserted Gastrostomy**

If respiratory function is compromised.

- ▶ **PIG - Per-oral Image guided Gastrostomy**

Is also used for this group of patients in some areas, although this is not widely available.

Indications for Gastrostomy in MND

- ▶ Difficulty swallowing
- ▶ Prolonged and effortful mealtimes
- ▶ 5% weight loss at diagnosis
- ▶ Chest infections
- ▶ Difficulty maintaining hydration

Referral for consideration for gastrostomy

Refer to the nutrition nurses for further discussion re: possible gastrostomy.

- ▶ Information about gastrostomy
- ▶ The procedure - what's involved, potential risks
- ▶ Pros and cons
- ▶ Benefits if early gastrostomy
- ▶ Ongoing care and management of the tube
- ▶ Opportunity to look at the tubes
- ▶ Who will look after the tube/support

Pros and Cons of Gastrostomy in MND

PROS

- ▶ Provides an alternative route for nutrition, hydration and medication.
- ▶ Does not have to be used straight away.
- ▶ Can be used to supplement/ 'top up' oral intake.
- ▶ Or it can be used to meet full nutritional/hydration requirements.
- ▶ Can help to maintain nutritional status.

Pros and Cons of Gastrostomy in MND

CONS

- ▶ Will not prevent aspiration of upper airway or mouth secretions.
- ▶ Although a gastrostomy may help to maintain nutritional status, it rarely in this situation improves nutritional status.
- ▶ A gastrostomy will not slow down the progression of the disease.

Assessment

Prior to gastrostomy insertion a risk assessment should be completed.

We would look at the following for any patient referred for gastrostomy insertion:

- ▶ PMH
- ▶ Any contraindications
- ▶ Previous abdominal surgery
- ▶ Anticoagulation
- ▶ Allergies

Assessment

In patients with MND there are additional factors to consider:

- ▶ % of weight loss
- ▶ Respiratory function

Assessment

% of weight loss

- ▶ Severe weight loss before gastrostomy insertion may increase the risk of complications during or after the procedure.
- ▶ 30 day mortality rates are higher for patients who have lost >10% of their diagnosis weight compared to those who have lost 10% or less.

Assessment

Respiratory function

- ▶ Respiratory muscle weakness occurs eventually in everyone with MND
- ▶ Weakness of respiratory muscles can make lying flat difficult and such patients might also be very sensitive to even small doses of sedation.

Assessment

Respiratory function

Therefore up to date respiratory evaluation is required prior to gastrostomy insertion (within 1 month of proposed procedure)

- ▶ Is the patient able to lie flat for 20 mins?

Pulmonary Function Tests (PFTs) including:

- ▶ Lying and standing vital capacity
- ▶ Capillary blood gas
- ▶ Oxygen saturations on air
- ▶ Overnight oximetry

The results are used to determine the most appropriate method of gastrostomy insertion.

Gastrostomy placement risk assessment for patients with potential respiratory muscle weakness

Reference No:

Low risk – Must be no to all If yes to any refer for respiratory function testing	
Respiratory symptoms	Yes/No
Fatigue	Yes/No
Poor appetite	Yes/No
More than 5% weight loss	Yes/No
Poor speech volume	Yes/No
PEG may be able to go ahead on a routine list, with sedation and booked into EPU. Re-evaluate if delay between referral and procedure >1 month	

Moderate risk – if one or more apply	
Vital capacity < 50% predicted	Yes/No
Vital capacity falls by 15% or less on lying flat	Yes/No
More than 5% weight loss	Yes/No
Oxygen saturations <94% without known lung disease or <92% with known lung disease	Yes/No
PEG without sedation or RIG. This must be discussed with the gastroenterologist performing the PEG and with the respiratory team. To be admitted for their procedure to a respiratory ward	

High risk – if one or more apply	
On a blood gas PaCO ₂ >6kPa and bicarbonate >27mM/L	Yes/No
Already on NIV	Yes/No
Unable to lie flat for 20 mins	Yes/No
>10% weight loss	Yes/No
NIV must be available for use peri-or during the procedure via a nasal mask. PEG without sedation or RIG This must be discussed with the gastroenterologist inserting the PEG and respiratory. To be admitted for their procedure to a respiratory ward	

Possible risks of late Gastrostomy

- ▶ Low critical body mass
- ▶ Respiratory complications
- ▶ Higher risk of mortality
- ▶ Higher risk of procedural complications
- ▶ Less likely to benefit from gastrostomy and therefore unlikely to have a positive impact on quality of life.
- ▶ Risks outweigh the benefits

Benefits of Early Gastrostomy

Early placement of a gastrostomy tube is recommended even if its not used straight away.

- ▶ While the patient is well enough to undergo the procedure.
- ▶ Before significant weight loss occurs
- ▶ Before respiratory function is significantly impaired
- ▶ The patient is able to get the most benefit from the gastrostomy and therefore have a more positive impact on quality of life.

Benefits of Early Gastrostomy

Early placement also makes it more likely that the patient can have a PEG rather than RIG

Benefits of PEG Vs RIG

- ▶ Slightly less maintenance
- ▶ Higher rate of gastrostomy tube related problems/complications with RIG such as :
 - Tube leakage
 - Displacement and replacement

Benefits of Early Gastrostomy

It is therefore important that gastrostomy is discussed early and at regular intervals.

Patients should be made aware of the benefits of early gastrostomy and the possible risks of late gastrostomy in order for them to make an informed decision.

Any questions?



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