

Case 3

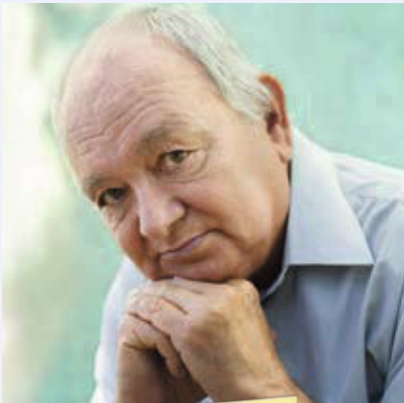
Jejunostomy feeding in oesophageal cancer

Clinical summary



Presentation/clinical history

- Mr G, 68 years, veterinarian, diagnosed with T4aN1MO oesophageal carcinoma 3 months ago**
- Following 3 cycles of neo-adjuvant chemotherapy, Ivor Lewis oesophago-gastrectomy with lymphadenectomy 10 days ago
 - At surgery 9Fr Freka FCJ surgical jejunostomy tube was sited
 - Transferred to ward from high dependency unit on Fresubin Original Fibre
 - Started eating on day 7 following surgery - progressing well
 - Past medical history: Barrett's oesophagus, type 2 diabetes
 - Medication: omeprazole, morphine, metformin (on temporary sliding scale insulin following surgery), macrogol
 - Biochemistry: Na 144 mmol/l, K 4.1 mmol/l, Ur 6.4 mmol/l, Cr 80 µmol/l, PO₄ 1.02 mmol/l, HbA1c 7.1 mmol/l



Weight history

Normal weight	90 kg (BMI: 30.1 kg/m ²)
At diagnosis	84.7 kg (BMI: 28.3 kg/m ²)
Current	78.6 kg (BMI: 26.3 kg/m ²)

- Weight loss since diagnosis: **7.2%**; Total weight loss: **12.7%**

Tube feeding following gastrointestinal surgery may reduce malnutrition risk.¹³

Nutritional assessment



Estimated nutritional requirements

- Energy: 2358 kcal¹
(30 kcal x 78.6 kg)
- Protein: 117.9 g (1.5 g/kg)¹
- Fluid: 2379 ml (using the 100/50/15 formula)⁷



Dietetic assessment

- Current feeding regime Fresubin Original 1500 ml at 75 ml/hr x 16 hr with 30 ml water flushes pre- and post-feed with sterile water.
- Oral intake: managing minimal amounts of soft food and normal consistency fluids < 200 kcal and 5 g protein, appetite good but vomiting regularly - commenced anti-emetics.
- Bowels moving 1-2 daily, no problems reported.
- Blood glucose 5.6-7.8 mmol/l: stable with sliding scale insulin.
- All 3 fixation sutures still in place and stoma site looks healthy, clear dressing insitu.
- Not meeting nutritional requirements.



Aim

- Maintain weight and nutritional status to support recovery.

Tube feeding with Fresubin



Nutrition therapy

Feeding tube 9Fr Freka FCJ-Set surgical jejunostomy tube (3 fixation sutures)

- High energy and protein requirements and a concentrated nutritionally complete feed is indicated.
- A feed with fish oil may have cardiovascular protection benefits.¹²
- As Mr G's bowels are moving well with fibre-free feed, continue with fibre-free feed; monitor and review as required.
- Monitor biochemistry, blood glucose and bowel function. Weight requested.

Day



Feeding regime

Change feed to 1500 ml Fresubin HP Energy - nutritionally complete in 1500 ml and provides 2250 kcal, 112.5 g protein and 1185 ml fluid

- Fresubin HP Energy 1000 ml at 75 ml/hr x 13.5 hr (approx. 7 a.m.-8.30 p.m.) with 30 ml water pre- and post-feed.
- Fresubin HP Energy 1500 ml at 100 ml/hr x 15 hr (approx. 7 a.m.-10 p.m.) with 30 ml water pre- and post-feed.
- Fresubin HP Energy 1500 ml at 125 ml/hr x 12 hr (approx. 7 a.m.-7 p.m.) with 30 ml water pre- and post-feed. Providing 2250 kcal, 112.5 g protein and 1245 ml fluid.

Monitoring/Follow Up

- Surgeon reports cancer more extensive than expected - await pathology results on margins/lymph nodes. Weight 77.8 kg, slight reduction as expected as feed being titrated following surgery. Tolerating Fresubin HP Energy 1500 ml at 100 ml/hr as per regime. No new issues with biochemistry or blood glucose levels.
- Bowels moving well, no problems reported. Oral intake remains poor and drinks mostly black tea on normal diet but still vomiting regularly. Total from feed and oral intake = 2450 kcal, 120 g protein and 2350 ml therefore meeting nutritional requirements. Continue with plan as above Fresubin HP Energy 1500 ml at 125 ml/hr x 12 hr.
- Sliding scale insulin stopped, back on to metformin. Blood glucose 6.6-7.9 mmol/l. Bowels soft and moving daily without need for laxative. Fresubin HP Energy 1500 ml at 125 ml/hr x 12 hr continues to be tolerated well - no changes.
- Reviewed by surgeon, patient now palliative, review as an outpatient. Continue with feed as tolerated well of 1500 ml Fresubin HP Energy at 125 ml/hr. Arrange for patient/family training on feeding pump, also advised to use cooled-boiled water for flushing tube.
- Aim changed: minimise further depletion in nutritional status due to palliative diagnosis.
- Outpatient, provided with 7-day supply of feed and giving sets. Community dietician to follow-up at home. Last weight recorded 75 kg - not to be weighed now due to palliative nature of disease.
- Home visit: mood low but glad to be home with family. Oral intake reported to be regular but not increasing as mild-moderate nausea and vomiting continues despite changed of anti-emetics. Feed running overnight at 125 ml/hr as per regime.
- Some slight discharge from stoma site - encouraged to clean daily. Continue with feeding as above.
- Mr G is to receive palliative chemo therapy - mood seems to have improved. Oral intake not progressing and remains minimal. Given further food fortification advice and importance of enjoying food consumed. Vomiting stopped now but nausea continues. Blood glucose levels are stable approx. 7.6-8.2 mmol/l.
- First chemotherapy session completed: feeling well so far. Oral intake remains stable, small regular portions. Unlikely to increase significantly in coming weeks due to chemotherapy. Continue with Fresubin HP Energy 1500 ml at 125 ml/hr x 12 hr with 30 ml cooled-boiled water flushes pre- and post-feed.

Fresubin HP Energy is a nutritionally complete high energy, high protein feed to meet need following surgery in a small volume.

Tube feeding with Fresubin has helped maintain hydration status and minimise depletion in nutritional status.

Therapeutic outcome



- Mr G has been unable to progress with oral intake following surgery and his jejunostomy feeding has reduced pressure on oral intake following surgery and during palliative chemotherapy.
- Feeding via jejunostomy had minimal impact on nausea and vomiting.
- Fresubin HP Energy was able to meet Mr G's full nutritional needs in only 1500 ml.