Diabetes and Pancreatic Cancer

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Type 1 Diabetes

• An autoimmune condition which causes destruction of the insulin producing cells in the pancreas.

• The only treatment is insulin

• Less than 10% of people with diabetes
Type 2 Diabetes

• Linked to lifestyle factors

• Insulin resistance

• Almost 90% of people with diabetes

• Treated with diet, weight loss, tablets, injectable therapies, insulin.
Type 3c Diabetes due to Pancreatic Cancer

- If whole pancreas removed how is the diabetes managed?

- For all other cases the options are:

  1. Care with diet (but not a weight loss diet)
  2. Tablets for diabetes (Sulphonylureas)
  3. Not Metformin / Victosa / Dapagliflozin & others Why?
  4. Start with Tablets and progress to insulin
  5. Insulin
Blood glucose targets

• If not diabetic - 3.5 – 8 mmol/l
• If well controlled type 1 may manage 5 – 9 mmol/l
• For most people with pancreatic cancer 6 -12 mmol/l
• If palliative care 8 – 15 mmol/l

• Good control of diabetes is important – why?
• Why is tight control of diabetes often not useful (and can be harmful) if someone has pancreatic cancer?
Case 1 - very happy patient

- Tests showed likely to develop pancreatic cancer
- Advised to have a 2 week active holiday and good nutrition
- Informed would have diabetes and require insulin
- Seen by DNS post surgery
- Started on basal bolus insulin
- What is basal bolus insulin?
- Needs treating as for Type1 diabetes but also requires creon
- Could do DAFNE
Case 2 – Cake please (not lettuce again)

• Pancreatic cancer surgery not an option
• DNS review needed as high BG and needing steroids (chemotherapy)
• On Metformin
• Blood glucose mid teens
• Trying to control by being very careful with diet
• Weight loss
• Hungry all the time and desperate for cake.
• Started on BD mixed insulin
• Palliative chemo but did eat cake
The Case of the Magic Energy Shot

• Seen by dietician in clinic who asked for DNS advice
• Diagnosed DM 3 months ago
• Diagnosed inoperable Pancreatic Cancer 6 weeks ago
• HbA1c 76 mmol/l       Age mid 70s
• Not on any treatment for diabetes
• Feeling exhausted. Lost 1 stone in 1 month.
• Lives alone
• Admitted . Blood glucose 10 – 14 mmol/l. Eating very little food
• What treatment did he need?
2 days later

- Standing up and talking to patient in next bed
- ‘it feels as if I have had a magical shot of energy’
- Insulin increased
- Taught about insulin and monitoring
- Further insulin titration
Hypoglycaemia

• **Blood glucose of 4 mmol/l or less**

• What are the usual symptoms of a hypo?

• What would you do if a patient in your clinic had a blood glucose of 3.8 mmol/l?

• Suggest possible causes of this hypo

• He is planning to drive home after clinic. What advice would you give?
Hyperglycaemia

• What are the symptoms if Blood glucose over about 15 mmol/l?

• What is DKA?

• What is HHS
Police and Ambulance

• No diagnosis of diabetes
• Exhausted
• Next morning unable to move (except fingers)
• All over body pain. Alone in flat.
• What happened next?
• What was the diagnosis?
Honey and lemon

• No diagnosis of diabetes
• Started on high dose steroids
• Felt thirsty and tired
• Used grandmothers remedy
• What happened next?
• How could this have been avoided?
Managing diabetes at the end of life

• If someone has had a total pancreatectomy and insulin was stopped what would happen?

• May need to stop tablets and change to insulin

• Aim to avoid symptomatic hyperglycaemia and hypoglycaemia

• Aim for blood glucose 8 -15 mmol/l

• Reduce blood glucose monitoring to a minimum