

# Diabetes and Pancreatic Cancer

Margaret Palmer  
Diabetes Specialist Nurse  
Leeds Teaching Hospitals

# 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