**Prevalence of type 3c diabetes mellitus in patients undergoing pancreatic surgery for neoplasia**

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**Introduction:** Between 40 and 65% of patients with pancreatic cancer have concurrent diabetes mellitus at time of diagnosis. This includes both long standing diabetes mellitus (type 2) and cancer related diabetes (type3c) which can precede pancreatic cancer diagnosis by up to 3 years. Current estimates on prevalence of type3c diabetes are based on retrospective studies.

**Aims:** To identify prevalence of type3c diabetes in patients undergoing surgery for suspected pancreatic neoplasia.

**Materials and methods:** 107 patients underwent surgery for suspected pancreato-duodenal malignancy at our tertiary referral unit between June 2016 and May 2017. Paired glycated haemoglobin (HbA1c) and fasting plasma glucose levels (FPG) were measured pre-operatively in 84 patients. Pre-existing diagnosis of diabetes status was confirmed by review of clinical records and duration of diabetes recorded. Diabetes mellitus of less than 3 years was considered as new-onset. FPG levels were taken into account to ascertain diagnosis of diabetes mellitus if HbA1c levels fell in prediabetes range (41-48mmol/mol).

**Results:** 19 patients had pre-existing diagnosis of diabetes mellitus at the time of admission for surgery and 8 of these were new-onset. 12 patients were noted to have an elevated HbA1c levels consistent with diabetes (>48mmol/mol) while 10 patients had levels indicative of prediabetes (HbA1c 41-48 mmol/mol). 8 of these 10 individuals with prediabetes levels of HbA1c, were also found to have elevated FPG (>7mmol/l) thereby confirming new-onset DM.

 **Conclusion:** The prevalence of type3c diabetes in patients undergoing surgery for suspected pancreato-duodenal malignancy at our unit was 33% (28/84). When glycaemic dysregulation (diabetes mellitus and prediabetes) was measured, the prevalence was around 49% (41/84) in our cohort of patients.