CAN WE PREDICT THE VASCULAR COMPLICATIONS IN PSEUDOCYST/ACUTE NECROTIZING PANCREATITIS- BASED ON TRYPsin FLUID ANALYSIS – A PILOT STUDY

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BACKGROUND
Direct erosion of significant vessel by the action of pancreatic enzymes especially trypsin and elastase can lead to thinning of vessel wall with pseudo aneurysm formation - a common cause of pseudocyst associated bleeding has a high mortality rate of 20%.

OBJECTIVE
Aim is to predict the vascular complications in pseudocyst/acute necrotizing pancreatitis based on trypsin fluid analysis.

METHODS
- Prospective non randomized interventional study of 32 patients of whom 22 cases had vascular complications and 10 cases with normal pseudocysts at ISGE & Stanley Medical College between Nov 2019 – Dec 2021
- Patients included were above 16yrs of both gender with acute / chronic pancreatitis irrespective of etiology clinically and by CECT abdomen.
- The preserved cystic fluids are stored at – 80 degree Celsius
- Trypsin cleaves peptide bond between the carboxyl group of arginine or the carboxyl group of lysine and the amino group of the adjacent amino acid.
- The activity of trypsin is measured in BAEE units by Spectrophotometric analysis.

RESULTS
- The activity of trypsin is measured in BAEE units by Spectrophotometric analysis.

CONCLUSION
- The activity of trypsin is significantly higher in all the complicated cases compared with uncomplicated cases.
- Measurement of Trypsin activity may predict the vascular complications inside the pseudocyst.
- The idea behind the present study began to reduce morbidity and mortality in cases with vascular complications both in acute and chronic pancreatitis with pseudocyst.
- Cysts of or irrespective duration can have vascular complications due to direct duct communication with the cyst and continuous enzymatic activity.
- Cysts with high trypsin activity requires early intervention than to follow a wait and watch strategy.

REFERENCES