PANCREATITIS MEDICAL APPENDIX

DEFINITIONS

- 1. In clinical practice **pancreatitis** is classified into acute and chronic forms.
- 2. **Acute pancreatitis** is an acute haemorrhagic inflammation of the pancreas which will resolve if the initiating cause is removed.
- 3. **Chronic pancreatitis** is a chronic inflammation of the pancreas associated with permanent derangement of structure and function.

ACUTE PANCREATITIS

CLINICAL MANIFESTATIONS

- 4. Severe epigastric pain with raised serum amylase is the hallmark of the condition.
- 5. The symptoms result from oedema, haemorrhage and necrosis of the pancreas, which is produced essentially by autodigestion of the gland by its enzymes.
- 6. The condition may be mild or fulminant.

AETIOLOGY

- 7. **Acute pancreatitis** has an incidence of about 5 per 100,000 per year in the UK, the male:female ratio being about equal but with the peak age of incidence in men being 30-40 years, and in women 50-60 years.
- 8. The two major causes of acute pancreatitis in the UK are -
 - 8.1 biliary calculi (50 per cent of all cases)
 - 8.2 alcoholism (25 per cent). This is a particular problem in young males.
- 9. The remaining 25 per cent of cases are composed of a variety of conditions
 - 9.1 abdominal surgery (especially biliary and gastric).
 - 9.2 blunt trauma (such as a severe blow to the abdomen) to the pancreas.
 - 9.3 distortion of the ampulla of Vater due to peptic ulcer or ampullary carcinoma.
 - 9.4 generalised disorders (hypercalcaemia, hyperlipidaemia, diabetes mellitus, and porphyria).
 - 9.5 reaction to some drugs (such as steroids, thiazide diurectics and sodium valproate).
 - 9.6 viral infection of the pancreas (eg mumps and Coxsackie virus).

- 9.7 some autoimmune diseases (eg polyarteritis nodosa).
- 9.8 impairment to the pancreatic blood flow (eg cardiopulmonary bypass, or as a result of hypothermia).

CHRONIC PANCREATITIS

CLINICAL MANIFESTATIONS

10. Epigastric pain, sometimes exacerbated by alcohol, is present in 93% of cases and there may be weight loss. Diabetes mellitus may be a complication of chronic pancreatitis; retinopathy is a frequent accompaniment, either in association with the diabetes or as a deficiency disorder.

AETIOLOGY

- 11. **Chronic pancreatitis** has a prevalence at autopsy of 300 per 100,000, but the prevalence of clinically significant disease during life is much less than this. Male:female ratio is 4:1, with a mean age of onset of 40 years.
- 12. The commonest cause of chronic pancreatitis is high alcohol consumption accompanied by a diet high in protein and fat.
- 13. Other causes are:
 - pancreatic duct obstruction due to stricture (eg. after trauma or acute pancreatitis) or pancreatic cancer
 - 13.2 hyperparathyroidism
 - 13.3 cystic fibrosis
 - 13.4 hereditary pancreatitis
 - 13.5 infantile malnutrition
 - 13.6 occasionally, stenotic lesions of the ampullary area (sometimes congenital) may cause chronic pancreatitis
 - 13.7 abdominal surgery (eg. gastrectomy)
 - 13.8 haemochromatosis
 - 13.9 isolated deficiency of amylase or lipase
- 14. There remains a large, unexplained, idiopathic group without identifiable cause. This is thought to account for up to 20% of all cases of chronic pancreatitis.

CONCLUSION

15. **Pancreatitis** is an inflammation of the pancreas and is usually classified into **acute** and **chronic** forms. There are various causes of each form, these causes having been listed above. In some cases, an identifiable cause cannot be found, the condition then being described as idiopathic.

REFERENCES

Mann C V and Russell R C G (Eds). Bailey and Love's Short Practice of Surgery. 21st Ed. 1992. London. Chapman & Hall Medical. p1086-1093.

Palmer K R and Penman I D. Diseases of the alimentary tract and pancreas - The Pancreas. In: (Eds) Haslett C, Chilvers E R, Hunter J A and Boon N A. Davidson's Principles and Practice of Medicine. 18th Ed. 1999. Edinburgh. Churchill Livingstone. p653-657.

Imrie C W. Diseases of the pancreas. In: (Eds) Weatherall D J, Ledingham J G G and Warrall D A. Oxford Textbook of Medicine. 3rd Ed. 1996. Oxford. Oxford University Press. p2027-2039.

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