

Preparation of patient with obstructive jaundice

Jaundiced patients undergoing surgery for large bile duct obstruction (from any cause) are subject to specific risks that require prophylactic measures. These include

- Infections (cholangitis, septicaemia, wound infections)
- Bleeding (due to deficiency of vitamin K dependent factors)
- Renal failure (hepatocellular shutdown)
- Liver failure
- Fluid and electrolyte abnormalities

Preparation for surgery is important because of the associated perioperative morbidity.

The specific measures required in all patients are:

- Clotting studies should be checked prior to surgery
- Parenteral administration of vitamin K analogues (10mg IM or IV) – to normalise prothrombin time (Obstruction to the biliary tree cause defective absorption of vitamin K upon which the clotting factors 2,7,9,10 depends on their synthesis).
- INR ratio should be less than 1.5 to avoid excessive operation bleeding and if urgent surgery is required, FFP should be administered immediately before and during the procedure
- Intravenous hydration (Mostly glucose water) and catheterization of the urinary bladder. Accurate hourly fluid balance must be established and IV fluids must be given to ensure adequate urine output.
- Patients with cardiac disease or sepsis should undergo central venous monitoring and in some cases dopamine infusions may be required.
- Forced natriuresis by mannitol with induction of anaesthesia (If mannitol not effective give furosemide IV)
- Antibiotic prophylaxis against gram negative aerobes – using a three-dose regimen against gram negative, positive and anaerobes.
- Pruritus usually subsides with correction of the underlying disorder or with 2 to 8 gm. orally administered cholestyramine bid, which binds bile salts in the intestine. However, this is ineffective in complete biliary obstruction.
- Unless severe hepatocellular damage is present, hypoprothrombinemia usually subsides after use of (vitamin K1) 5 to 10 mg sc once/day for 2 to 3 days.
- Ca and vitamin D supplements, with or without a bisphosphonate, slow the progression of osteoporosis only slightly in long-standing irreversible cholestasis.
- Vitamin A supplements prevent deficiency and severe steatorrhea can be minimized by replacing some dietary fat with medium-chain triglycerides.

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