1. **Introduction**
   1.1. Liver is located in the right upper part of the abdominal cavity, beneath the diaphragm and right of the kidney, above the stomach.
   1.2. Hepatectomy is an operation to remove a portion of the liver. It may be carried out after severe injury or to remove a tumor localized in the liver or area related to the biliary tree.
   1.3. Hepatectomy can be done via open or laparoscopic approach. The doctor will discuss with the patient for the best option.
   1.4. It is indicated for:
      1.4.1. Malignant or benign tumor of the liver
      1.4.2. Bile duct tumor, infections or inflammations
      1.4.3. A choice to treat intrahepatic stones or parasitic cysts of liver

2. **Procedural Preparation**
   2.1. You will usually be admitted one day before operation.
   2.2. Necessary clinical examinations and investigations may be carried out, such as blood tests, urine tests, electrocardiogram, or chest X-ray etc.
   2.3. The reason of operation, procedure and possible complications will be explained by the surgeon and consent form will be signed before operation.
   2.4. Pre-operative anesthetic assessment will be performed. The anesthetic management and its possible risks will be explained by the anesthetist with consent for anesthesia signed.
   2.5. Bowel preparation such as rectal suppository or enema may be required one day before surgery.
   2.6. Skin preparation such as clipping of the abdominal hair, shower and hair washing with extra attention to the umbilicus will help to prevent post-operative wound infection.
   2.7. No food or drink is allowed 6 to 8 hours before the operation.
   2.8. Compression stockings will be worn to prevent post-operative deep vein thrombosis.

3. **Procedure**
   3.1. This operation is performed under General Anesthesia.
   3.2. For open approach, incision is made in the right upper abdomen.
   3.3. For laparoscopic approach, 3 or 4 small incisions (less than an inch each) are made below the rib cage to create operating ports. The cavity is then inflated with carbon dioxide gas.
   3.4. The affected part of the liver will then be removed.
   3.5. A tube may be left in-situ for couple of days to drain out fluid from the abdominal cavity if any. Abdominal wound will be closed in layers.
   3.6. This is a complex surgery. Close observation will be carried out by specially trained nurses, under the direction of the anesthetist after the operation.

4. **Recovery Phase**
   4.1. Mild throat discomfort or pain and increased mucus secretion might be experienced after tracheal intubation. Deep breathing and coughing exercises is encouraged.
   4.2. Place hands over the abdominal wound when coughing or bringing up sputum.
   4.3. Tiredness, nausea and vomiting may be experienced after general anesthesia. Inform the nursing team know if symptoms persisted or become severe.
4.4. Post-operative pain can be managed by Patient Control Analgesia (PCA) pump which is an electronically controlled infusion pump that delivers a prescribed amount of intravenous analgesic when the button is pressed. Inform nurses for alternative pain control if pain persisted.

4.5. Diet is restricted during the immediate post-operative period. It is gradually resumed from fluid, soft to normal diet when bowel function resilience and instructed by your doctor.

4.6. The abdominal wound dressing will be kept intact after operation. Tubal drain(s) from abdominal cavity may be removed when the fluid drainage diminished.

4.7. Avoid pulling the drain when mobilize, tight garment and pressure on wound/dressing.

4.8. Stitches or staples will be removed around 7 to 10 days.

4.9. Light activities can be resumed within 24 to 48 hours after the operation, use your hands to provide extra support over your abdomen when getting in and out of bed.

4.10. Early ambulation is encouraged. Activities should be increased gradually upon tolerance and condition.

5. **Possible Risks and Complications**

5.1. Complications for general major operation include Myocardial Infarction, Myocardial Ischemia, Stroke, Deep Venous Thrombosis, and Pulmonary Embolism.

5.2. Possible procedure related complications include Bleeding, Liver Failure, Injury to Hepatic Duct and Biliary Fistula, Abdominal Sepsis, Wound Infection, and Septicemia.

5.3. Before operation, patient must acknowledge and accept the fact that these complications may occur. A subsequent operation may be required to deal with the complications such as organ injury, bleeding or leakage after operation. This is a major operation with a high chance of mortality around 1-5%.

6. **Discharge Education**

6.1. Seek medical attention if severe pain, tenderness, purulent discharge, abdominal pain, severe vomiting, fever (body temperature above 37.8°C, rigor or jaundice occurs.

6.2. Consume small frequent meals for patient with lack of appetite or indigestion.

6.3. You may take analgesics as prescribed by your doctor if necessary.

6.4. Avoid heavy lifting and strenuous activities for the first 4 to 6 weeks.

6.5. Avoid excessive extends or bends of body.

6.6. It may take up to 3 to 6 months for full recovery and depends on individual condition.

6.7. Follow up appointment should be attended as arranged.

7. **Remark**

7.1. The above mentioned procedural information is not exhaustive, other unforeseen complications may occur in special patient groups or different individual. Please contact your physician for further enquiry.

8. **Reference**


8.2. Operation Information Pamphlet: Hepatectomy. Department of Surgery, United Christian Hospital, Hospital Authority.
I, ______________________ acknowledged that the above information concerning the operation or procedure has been explained by Dr ____________________. I have also been given the opportunity to ask questions and received adequate explanations concerning the condition and treatment plan.

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