

Overview of liver surgery to understand postoperative complications

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Lecture : Liver surgery is often accomplished to treat patients with hepatocellular carcinoma or metastasis, primarily from colorectal cancer. Besides the conventional open surgery aiming at complete tumor removal with a sufficient security margin, there are (minimally-invasive) laparoscopic techniques and ablation therapies, most notably radio-frequency ablation (RFA), where the whole tumor should be destroyed by applying energy and heating the tissue. Increased accuracy leading to the complete destruction of a metastasis is known to have a positive effect on the tumor recurrence. Surgery to remove part of the liver is called partial hepatectomy. This operation is considered for a single tumor that has not grown into blood vessels. It is only an option in patients with good liver function who are healthy enough for surgery. Unfortunately, most liver cancers cannot be completely removed. Often the cancer is in too many different parts of the liver, is too large, or has spread beyond the liver. People with cirrhosis are eligible for surgery only if the cancer is small and they still have a reasonable amount of liver function left. Doctors often assess this function by assigning a Child-Pugh score (see Liver Cancer Stages), which is a measure of cirrhosis based on certain lab tests and symptoms. Because people with liver cancer usually have other liver problems besides the cancer, surgeons have to remove enough of the liver to try to get all of the cancer, yet leave enough behind for the liver to function adequately. A lot of blood passes through the liver, and bleeding after surgery is a major concern. On top of this, the liver normally makes substances that help the blood clot. Damage to the liver (both before the surgery and during the surgery itself) can add to potential bleeding problems.