Portal Vein Embolization

The liver is a unique organ because it can hypertrophy ("re-grow") after part of it has been removed. However, the body does require that a minimum amount of liver be left behind following surgery in order to give the body enough time for this re-growth to occur.

In some circumstances, the tumor in the liver is so large, that a large amount of liver would need to be removed so that all the disease can be taken out. In these circumstances, physicians at Johns Hopkins Medicine can utilize portal vein embolization to help the liver re-grow before the surgery. Patients who previously were not candidates for surgery, due to the small amount of liver that would be left behind, can now undergo surgery and have successful and safe removal of their tumor(s).

What is portal vein embolization?

Portal vein embolization is a technique used to help re-grow the liver prior to liver resection surgery. During the procedure a needle is placed percutaneously (through the skin) into the liver. Your physician will identify the blood vessel going to the side of the liver that has the largest portion of the tumor. This blood vessel is then embolized (cut off), thereby "tricking" the liver into making the other side of the liver grow.

After several weeks, the side of the liver which has not been embolized should have grown to the point where there is now a sufficient amount of liver to do surgery.

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