LIVER TRANSPLANTATION IN MY LIFE

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My interest in liver transplantation started in 1956 with an investigation of the effect of insulin on the liver. Liver transplantation was an experimental model to allow these studies which led eventually to the hepatotrophic concept where by portal venous blood has special liver supporting constituents of which insulin is the most important. I worked on orthotopic liver transplantation for 5 years (1959-1963) before attempting the operation clinically. Kidney transplantation had not been successful except for isolated examples in Boston and France, and my strategy was to achieve this first. The kidney transplant series in Denver in 1962 and 1963 was the first in the world with consistent survival. This was accomplished with Imuran and prednisone. Liver trials began on March 1, 1963. The first 5 attempts failed, and these efforts were abandoned until 1967. In 1967, 7 more liver transplantations were tried, all in children, and all with survival beyond that previously achieved. Three of the children live more than a year with the longest survival 2 1/2 years. In January 1970, a child with biliary atresia received a new liver with survival that is now more than 21 1/2 years. Of the first 170 livers treated with Imuran and prednisone (with or without ALG) from 1963-1979, 30 are still alive after 11 1/2 to 21 1/2 years. This record could not be improved with Imuran-prednisone baseline therapy (including ALG), but in 1980, a new series was begun using cyclosporine-steroid therapy with 70-80% one year survival. In 1989, the new drug, FK 506, was introduced after 3 years of laboratory investigation. Now the 1 year survival rose to 90%. Thus, liver transplantation followed the pathway of the easier kidney model. In turn, it was the first extrarenal organ to be transplanted, and soon after followed the heart, lungs, and pancreas. Later on, the liver was the key organ in making possible the recent advances in pancreatic islet transplantation and in the increasingly successful intestinal transplantations which will be reported. It also became the prime test organ for evaluation of new immunosuppressive drugs and strategies.