

特別講演1 肝・胆・膵疾患の画像診断と病理所見

特別講演2 LIVER TRANSPLANTATION IN MY LIFE (Abstract)

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超音波、X線CT、核磁気共鳴(MRI)などの画像診断の応用によって肝・胆・膵疾患の臨床に飛躍的進歩がみられている。これらの疾患の確定診断は病理所見に基づいてすすめられるものであり、開腹下あるいは経皮的生検など、主に侵襲的手段によって病理所見を得ることが行なわれてきた。画像診断は非侵襲性に肝・胆・膵の各臓器の形態的全体像や部分像をあらわし、さらに実質の変化、管腔構造(胆のう、胆管、膵管)の変化、血管の変化、血流の変化、また、脾腫、腹水、側副血行路など関連臓器の変化をふくめて画像としてあらわし、診断をすすめることができる。これらの画像所見は開腹や剖検で得られる精細な肉眼病理所見に匹敵する内容をもつものであり、確定診断の有効な根拠となる。

今回は肝・胆・膵疾患において、最近の画像診断が病理所見に対応して病変の把握をどこまで可能とするかに主眼をおいて論ずることとする。

A. 画像であらわすことのできる病理所見

1. 形態の異常

肝: 腫大、萎縮、変形、表面の不整凹凸、実質の限局性異常、門脈肝静脈肝動脈の屈曲、狭窄、閉塞

胆道: 胆のう-腫大、萎縮、変形、壁肥厚、壁の限局性異常、腔内異物 胆管-拡張、狭窄、閉塞、壁の限局性異常、腔内異物

膵: 腫大、萎縮、変形、表面の不整凹凸、実質の限局性異常、膵管の屈曲、狭窄、閉塞、膵管腔内の異物  
関連臓器: 脾腫、静脈瘤、腹水

2. 実質の異常

肝膵: 壊死、出血、線維増生、脂肪沈着、金属(鉄、銅)沈着、カルシウム沈着

3. 血流異常

血流の速度・方向・流量異常、シャント形成、側副血行路

B. 画像により有効に診断される疾患

肝疾患: 重症肝炎、肝硬変、脂肪肝、ヘモクロマトーシス、日本住血吸虫症、肝癌(肝細胞癌、転移性肝癌、肝内胆管癌)、血管腫、嚢胞、膿瘍、肝内胆石、血流シャント、側副血行路、肝外門脈閉塞

胆道疾患: 胆石、胆のう炎、胆管炎、胆のうポリープ、アデノミオマトーシス、先天性総胆管拡張、胆のう癌、胆管癌

膵疾患: 重症急性膵炎、慢性膵炎、膵石、嚢胞、膿瘍、膵癌

C. 画像所見による進展度、重症度の判定

悪性腫瘍の進展度、重症急性炎症の重症度の判定に画像所見は病理所見に準じて役立つ。

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 hepatotropic 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 (1958-1963) 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 liver 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 nad strategies.