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**THERMAL ABLATION OF INFANTILE HEPATOCELLULAR CARCINOMA: AN
ALTERNATIVE TRANS-DISCIPLINARY SALVAGE THERAPY**

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Introduction

Infantile hepatocellular carcinoma (HCC) is uncommon. Usually encountered in infants with chronic liver dysfunction, chemotherapies have limited role and the prognosis correlates with tumour resectability or fitness and feasibility for liver-transplantation.

Objectives

This study reports a case of an infant with multi-organ dysfunctions whose HCC was managed by trans-disciplinary collaboration utilizing novel therapies to overcome the odds prohibiting conventional treatments.

Methodology

A baby-boy born at 24-weeks gestation was ridden by severe cholestasis and chronic lung disease with severe pulmonary-hypertension. Subsequently a liver tumour was found progressing in segment-VI; percutaneous biopsy was suggestive of HCC while serum alphafetoprotein assays were equivocally elevated. After multi-discipline case evaluation among surgeon, oncologist, intensivist, intervention-radiologist and anaesthetist, neither major liver resections nor chemotherapies were considered feasible, instead decided was alternative salvage involving minimal-access thermal-ablation plus novel pharmacotherapies for peri-operative cardiopulmonary optimization.

Result

At 15-months, the infant's liver-tumour had enlarged to 3.3cm in diameter. By Iloprost-infusion (prostacyclin-analogue) his pulmonary-arterial pressures were titrated from >40mmHg down to <25mmHg; sonogram-guided microwave tumour-ablation took place under general anaesthesia with uneventful recovery. Early

postoperative serum alphafetoprotein assays fell from 1289iu/ml to 142iu/ml. Magnetic-resonance liver scan at 3-months revealed only traces of remaining viable tumour. The infant was thriving with expectant improvement in pulmonary and systemic fitness, awaiting appraisal for follow-up surgical treatment. HCC may present in infants with unfavorable physiology that prohibits conventional oncological treatments. Prostacyclin-analogue is an effective novel pharmacotherapy in peri-operative modulation of pulmonary-hypertension. Minimal-access microwave tumour-ablation can be a feasible alternative to 'buy time' before expectant fitness for definitive surgery. Positive inter-disciplinary collaboration is paramount in accomplishing such elective procedures with ultra-high anaesthetic risks.