



# NON-TRANSPLANT RESECTION OF MULTIFOCAL PRETEXT IV HEPATOBLASTOMA : A CASE REPORT

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## Introduction

Hepatoblastoma is the commonest childhood liver tumour. Complete surgical resection has been the mainstay of treatment to achieve cure. However 60% - 80% of the cases are unresectable at diagnosis and requires neoadjuvant chemotherapy to allow for a safe resection<sup>1,2</sup>. Liver transplant needs to be considered when it remains unresectable after chemotherapy. In this report we discuss a case of unresectable hepatoblastoma post chemotherapy which was not feasible for transplant and underwent an extreme resection to achieve clearance.



Figure 1: Huge liver mass was palpable prior to surgery

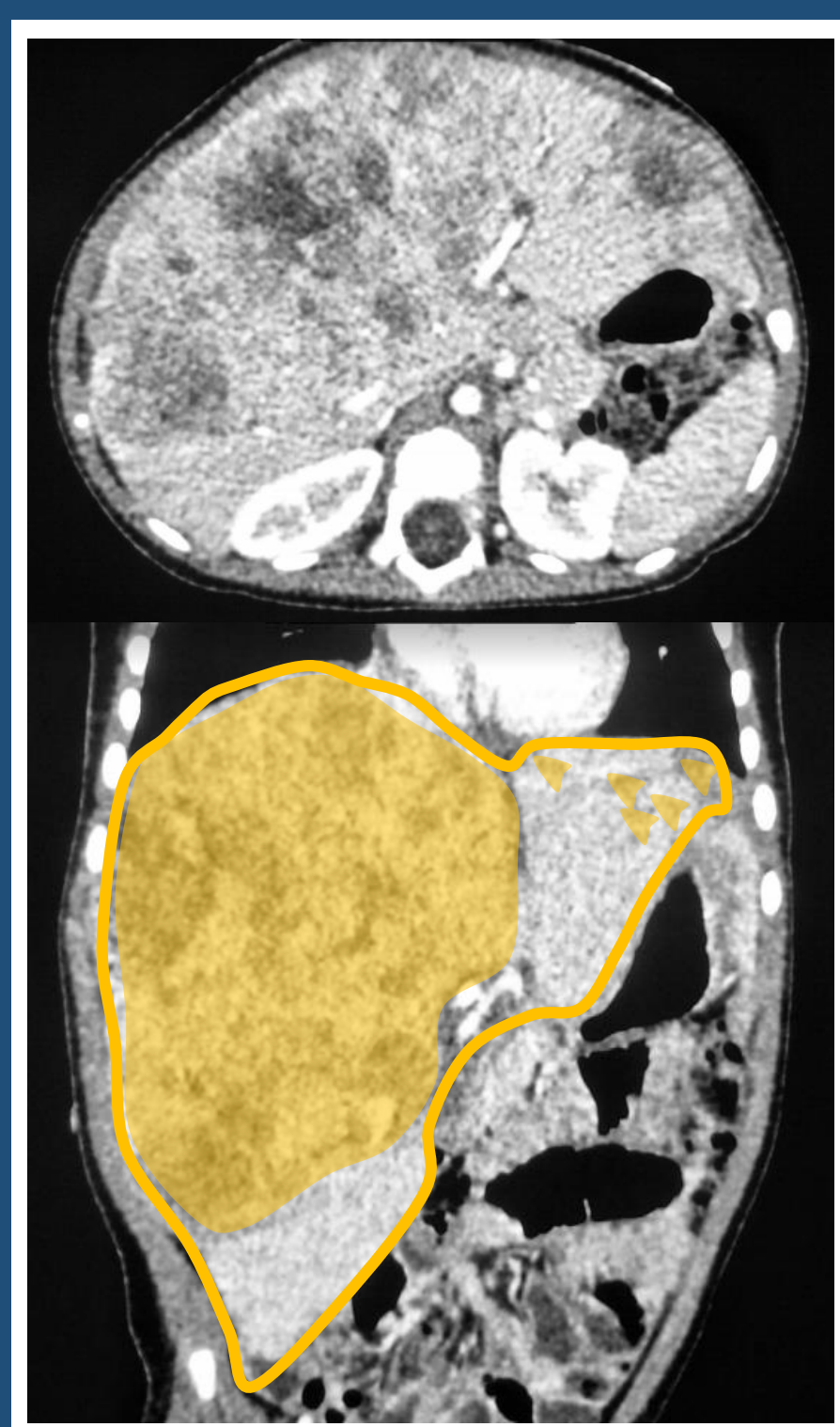


Figure 2: CT Abdomen at diagnosis showed a huge right lobe liver mass with multiple nodule at segment II and III

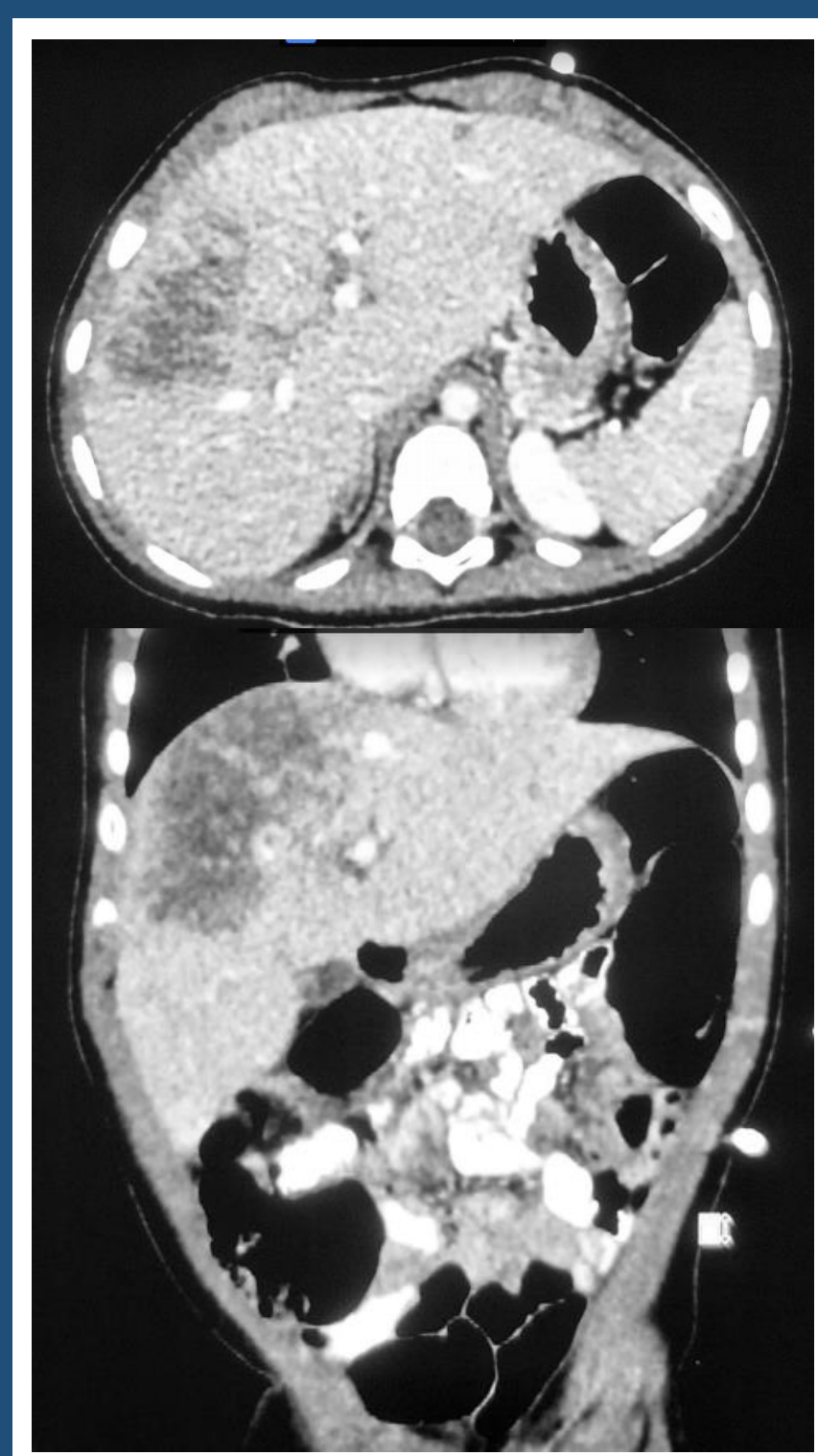


Figure 3: CT Abdomen after chemotherapy showed reduction in tumor size

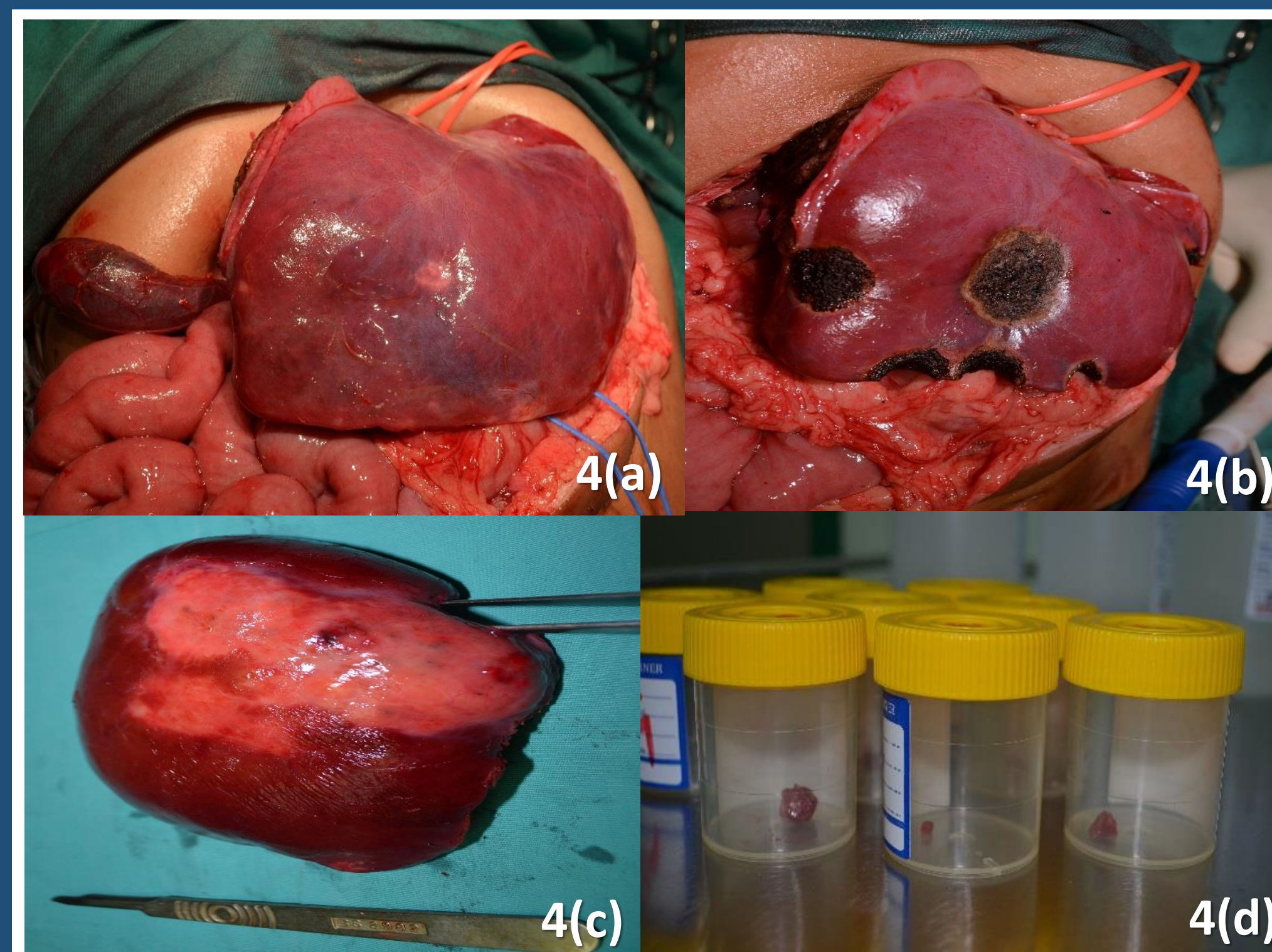


Figure 4 (a): The remnant liver post extended right hepatectomy and (b) after wedge resections / nodules. (c) The resected tumour. (d) The specimens from wedge resections / nodules.



Figure 5: CT Abdomen after the surgery

## Case Report

This is a case of a 2 year-old girl who was presented with a painless abdominal mass. Her  $\alpha$ -Fetoprotein was 524,606 IU/L. Ultrasound and CT scan showed a huge right sided liver mass and multiple lesions at segment II and III, with bilateral lung metastases. She was diagnosed to have multifocal PRETEXT IV Hepatoblastoma. Neoadjuvant chemotherapy SIOPEL 4 HR was started. Post chemotherapy assessment showed a POSTTEXT IV liver tumour (segment IV/ VII/VIII with 7 nodules at segment II/III), with reduction in tumour size and lung nodules. We have done an extended right hepatectomy with wedge resection of 8 nodules at segment II/III (few nodules were detected with a guidance of intraoperative ultrasound). Postoperative recovery was uneventful with no evidence of liver insufficiency and her  $\alpha$ -Fetoprotein has normalized. Adequate resection was seen on histopathological examination and all the 8 nodules resected showed residual hepatoblastoma with post-chemotherapy changes. CT scan post treatment showed no evidence of tumor recurrences.

## Discussion

Multifocal PRETEXT IV Hepatoblastoma poses a great surgical challenge to allow for a complete tumour resection. In the absence of metastatic disease after chemotherapy, total hepatectomy and liver transplantation is indicated<sup>1</sup> and long term survival of this group of patients were reported to be 80% to 90% after primary transplantation<sup>4</sup>. In a centre where liver transplantation is not readily available and in the presence of lung metastasis, total hepatectomy with primary liver transplantation is not an option to our patient. Thus, partial hepatectomy was offered for a chance of survival. Without total hepatectomy and liver transplantation, there is a concern of early recurrence in the remnant liver due to microscopic residual disease or due to small residual tumour which may not be detected by imaging<sup>3</sup>. Fahy A.S. et al in their series, had 12 patients who underwent anatomic resection for multifocal hepatoblastoma in which 2 had additional wedge resections. In comparison to those who have undergone liver transplantation, they found that partial hepatectomy was not associated with local recurrences<sup>3</sup>. In our case, we performed an anatomical resection of the main tumour along with eight wedge resections of the tumour nodule at the remnant liver. No early recurrence was detected as per normalization of alpha-fetoprotein and no detectable lesion on imaging. And she otherwise recovered well from the surgery. In conclusion, aggressive non transplant resection is an option for multifocal PRETEXT IV hepatoblastoma. It is surgically challenging, however it has a comparable outcome as compared to those who underwent primary liver transplantation.

### References

1. Trobaugh-Lotrario A. D., Meyers R. L., O'Neil A.F. & Feusner J.H. Unresectable hepatoblastoma: current perspectives. *Hepatic Medicine: Evidence and Research* 2017;9:1-6
2. Lautz T.B., Ben-Ami T., Tantemsapya N., et al. Successful Nontransplant Resection of POST-TEXT III and IV Hepatoblastoma. *Cancer* 2011; 1976-83
3. Fahy A.S., Shaikh F & Gerstle J.T. Multifocal hepatoblastoma: What is the risk of recurrent disease in the remnant liver? *J Ped Surg* 2019
4. Tajiri T., Kimura O., Fumigo S., et al. Surgical strategies for unresectable hepatoblastomas. *J Ped Surg* 2012; 47:2194-2198