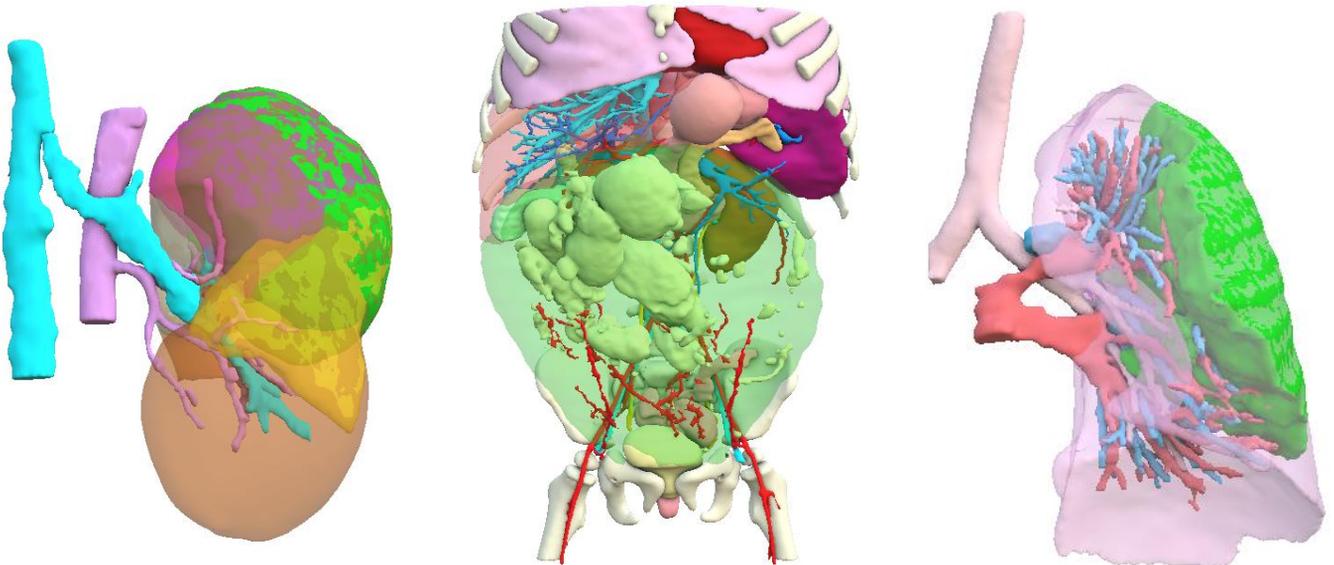


PEDIATRIC SURGERY

VISIBLE PATIENT PLANNING CLINICAL CASES

- Hepatic
- Thoracic
- Urologic



12/2025

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KEY POINTS for analysing a case

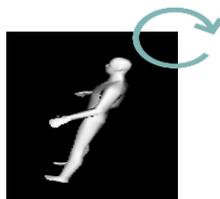
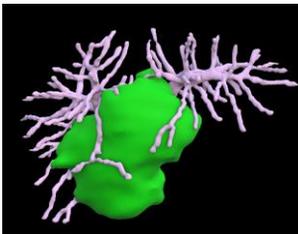
- 1- Use the **Anatomical Atlas activity** to analyse your case.

Anatomical atlas

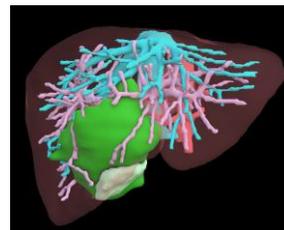
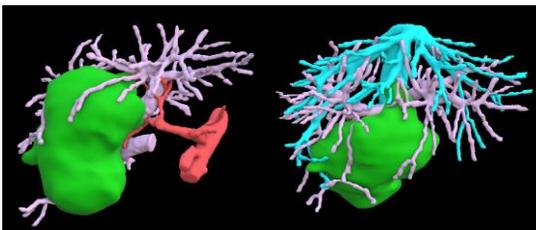


- 2- Use the **Clips Applying activity** and manipulate your model to **identify segments** based on the path of the portal vein (*Hide all 3D structures except the tumour*).

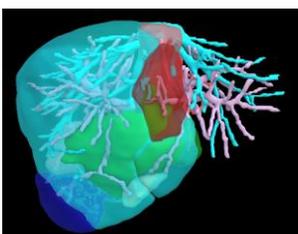
Clips applying



- 3- Add **arteries/veins/liver/gallbladder** to complete the analysis



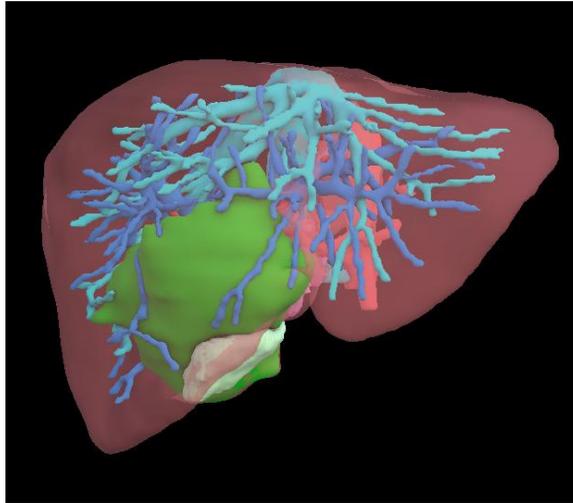
- 4- **Compose your resection** by selecting the target segments and sub-segments (*right clic on the portal vein*).



Clinical case – DEMO-PED-Liver-01

DIAGNOSTIC

- Hepatoblastoma PRETEXT III in **right liver**



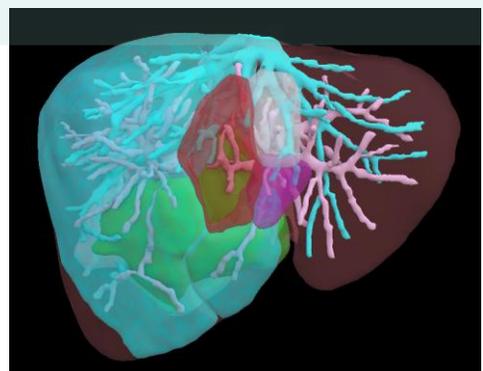
Anterior view

KEY ANATOMICAL VARIATION

- Median **portal vein (segment 8 and 5)** which comes from the **left portal trunk**
- **2 left hepatic veins**

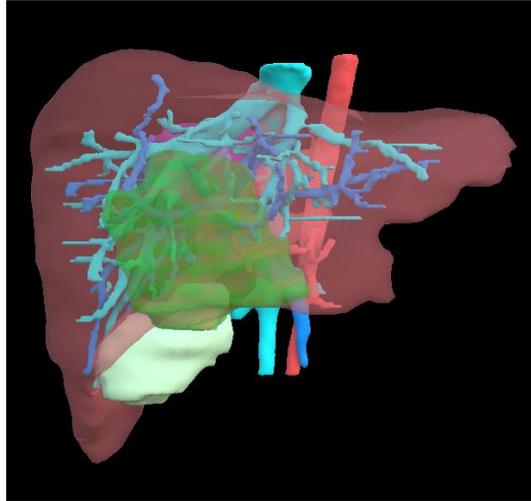
SURGERY PERFORMED

- **Extended central hepatectomy to segment VI**
(Hepatectomy of **segments 4, 5, 8 and 6**)



DIAGNOSTIC

- **Two lesions** of a **hepatoblastoma**, post chemotherapy and before surgery. The one on the right is more necrotic and very close to the **VCI**



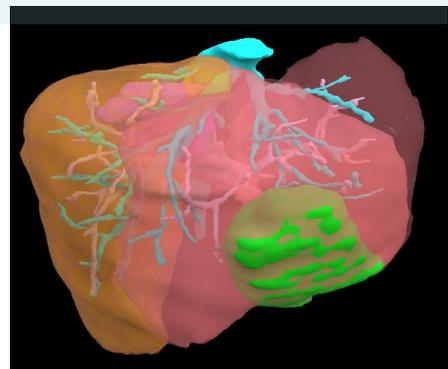
Anterior view

KEY ANATOMICAL VARIATION

- **Right hepatic vein atrophy**

SURGERY PERFORMED

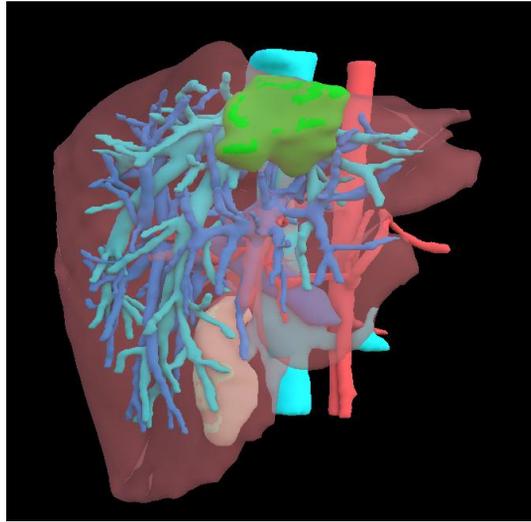
- **Liver transplantation** in the context of pretext IV hepatoblastoma with impossibility of liver resection (seen with VP)



Clinical case – DEMO-PED-Liver-04

DIAGNOSTIC

- Intermediate hepatocellular tumor between **hepatocellular carcinoma** and **hepatoblastoma** of **segment 4**



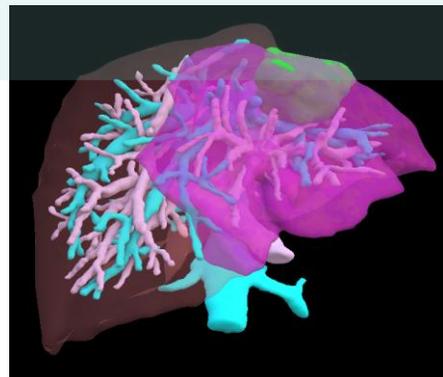
Anterior view

KEY ANATOMICAL VARIATION

- **Two median hepatic veins**
- Atypical arrangement of the **right portal veins**
- **Multiple portal veins** in the **left lobe**

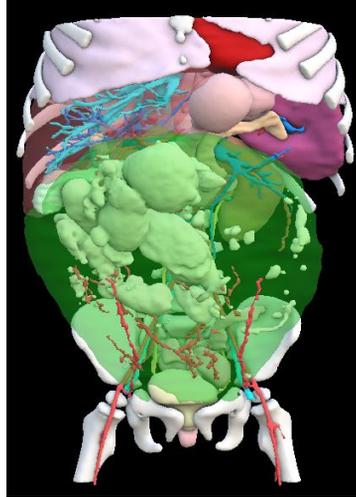
SURGERY PERFORMED

- **Left hepatectomy (segments 2, 3 et 4)**



DIAGNOSTIC

- **Hamartoma in liver**



Anterior view

KEY ANATOMICAL VARIATION

- Large tumor pushing away **all surrounding structures**

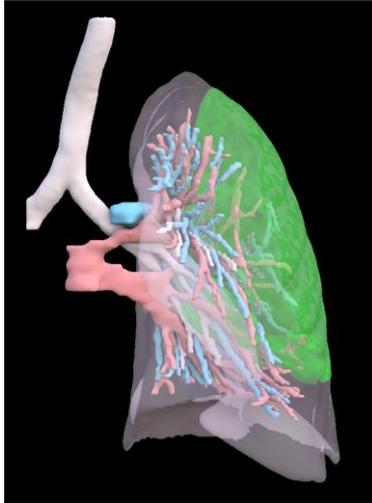
SURGERY PERFORMED

- Rapid resection of the hamartoma after locating the attachment points on segments 2 and 4 on the 3D model.

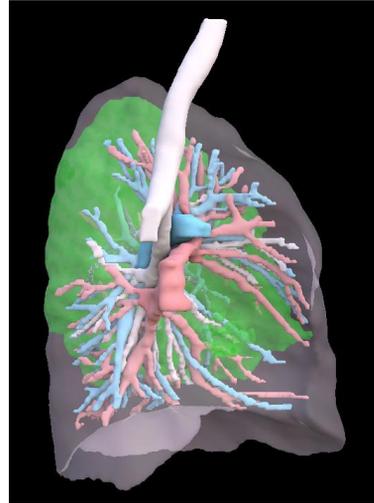
Clinical case - DEMO-PED-Thoracic-01

DIAGNOSTIC

- **Giant lobar emphysema in left lung**



Anterior view



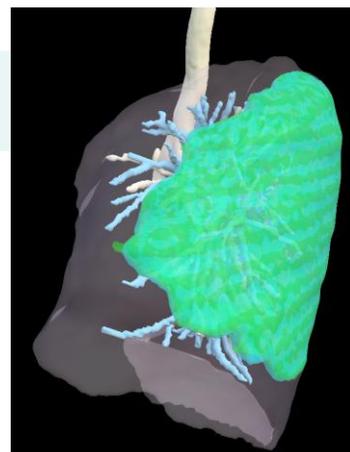
Lateral view

KEY ANATOMICAL VARIATION

- **Emphysema** is like a **middle lobe**, which is ventilated by a **middle main bronchus** pushing back the other lobes and their vessels

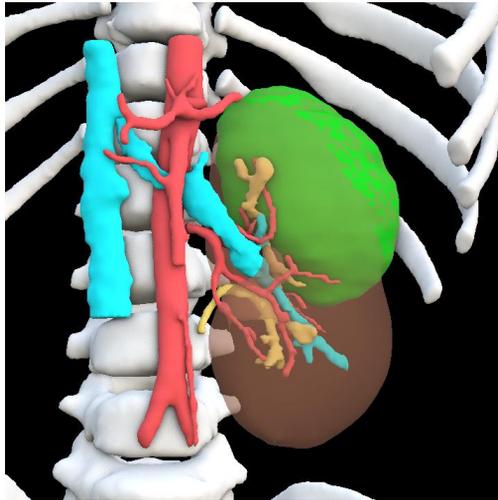
SURGERY PERFORMED

- **Resection of the emphysema area**



DIAGNOSTIC

- **Nephroblastoma** in **left kidney** of a five years old child



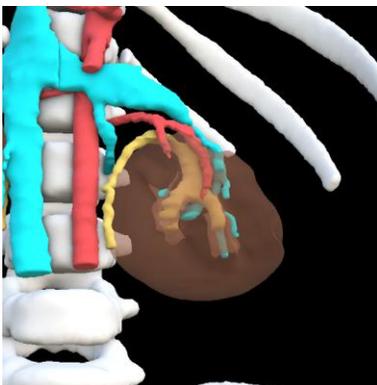
Anterior view

KEY ANATOMICAL VARIATION

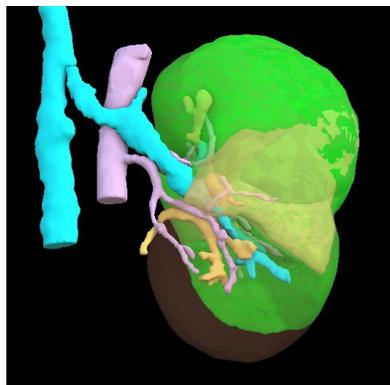
- **Two left renal arteries**

SURGERY PERFORMED

- **Partial nephrectomy**
- **preservation of the lower renal pole with the lower renal artery.**



Before surgery



After surgery

DIAGNOSTIC

- **Ganglioneuroma**



Anterior view

KEY ANATOMICAL VARIATION

- **Superior mesenteric artery, celiac trunk and renal arteries** in the tumor
- Large tumor pushing away **all surrounding structures**

SURGERY PERFORMED

- *No feedback about the segmentectomy*