SPECTRUM INDIA 2024
8TH - 10TH NOVEMBER, 2024 | GRAND HYATT MUMBAI

Registration Number : 563

Hepatic Artery Stenosis: An Unforeseen Challenge during TACE

Dr. Gaurav Pawar
Dr. Kaurabhi Zade
Sahyadri Superspeciality Hospitals, Pune

Introduction / Review of Literature:

- While performing the Trans Arterial Chemo Embolization (TACE) of Hepatocellular Carcinoma it is crucial to know the anatomy and the common anatomical variations of Hepatic artery.

- Classic anatomical branching pattern of hepatic artery is described as its origin from the Celiac artery and then the proper hepatic artery gets divided into the right and left hepatic branches.

- This is commonly seen in about 60% of population. However in the rest of the cases, the hepatic artery origin may be different.

Aims / Objectives:

- It is must to know origin of artery in order to selectively cannulate it. In an variant anatomy, is it important to know the tumour feeders are from normal branch or variant artery.

- Most common hepatic artery variation includes Replaced right hepatic artery which arises from SMA in 12% of the cases.

- There can also be accessory hepatic artery with anomalous origin from right hepatic, proper hepatic or gastro-duodenal artery. Overall all this variations contribute to 40% of population.

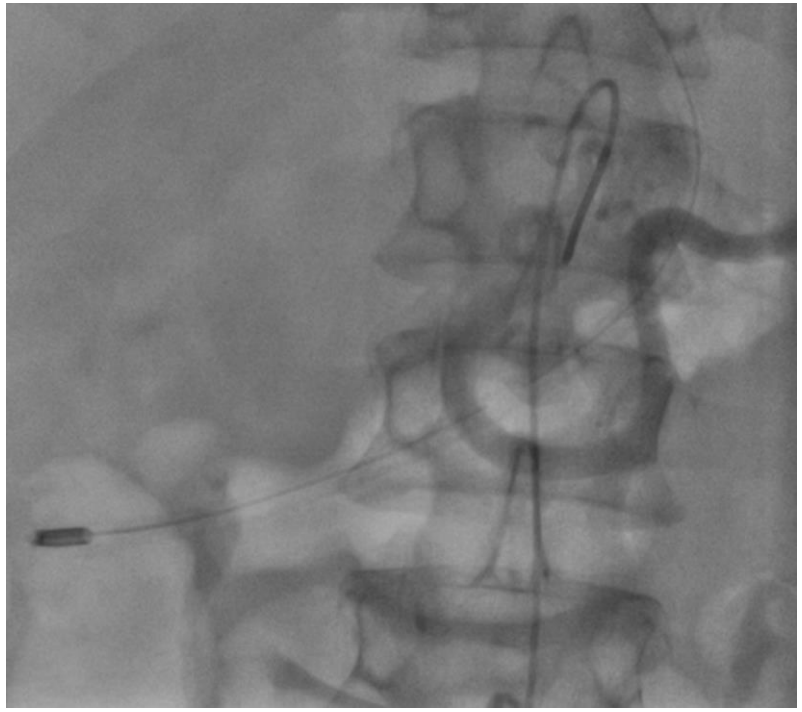
Methodology:

- Here we present an interesting case in which, the Hepatic artery anatomy was supposedly normal but still no tumour blush was seen. We tried cannulating all the possible origins of right hepatic artery including proper hepatic artery, GDA and SMA.

- Later, we re-visited to the cross-sectional imaging to discover there is focal stenosis in the right hepatic artery likely changing the flow dynamics of the contrast reaching tumour and thus preventing the blush.

Results:

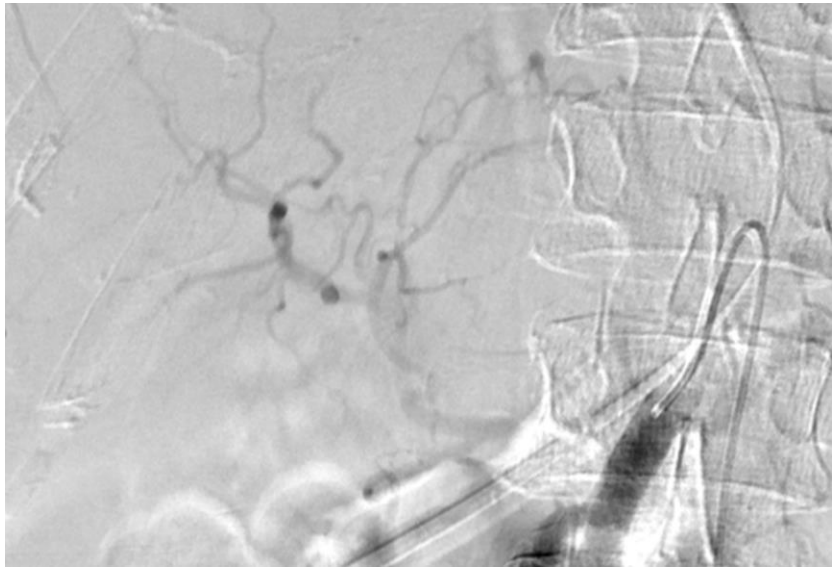
- When we tried angiogram from right hepatic artery with more injection pressure – satisfactory tumour blush was seen and then the TACE was completed in the conventional way.



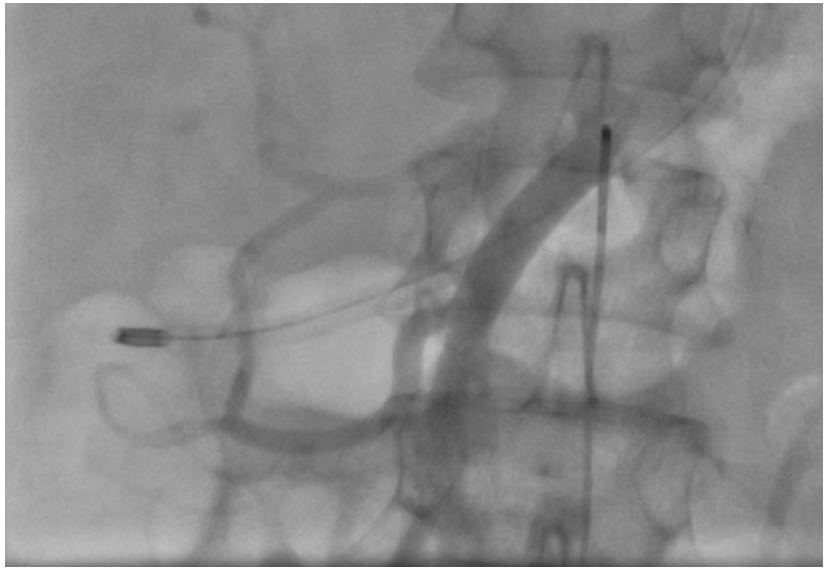
Hepatic Artery Stenosis

Representative Images:

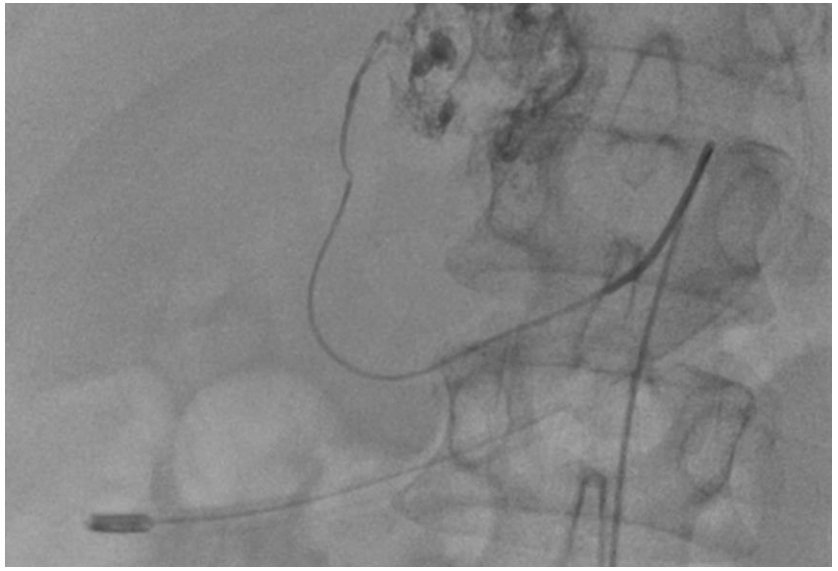
Celiac Angiogram



Angiogram with more Injection pressure



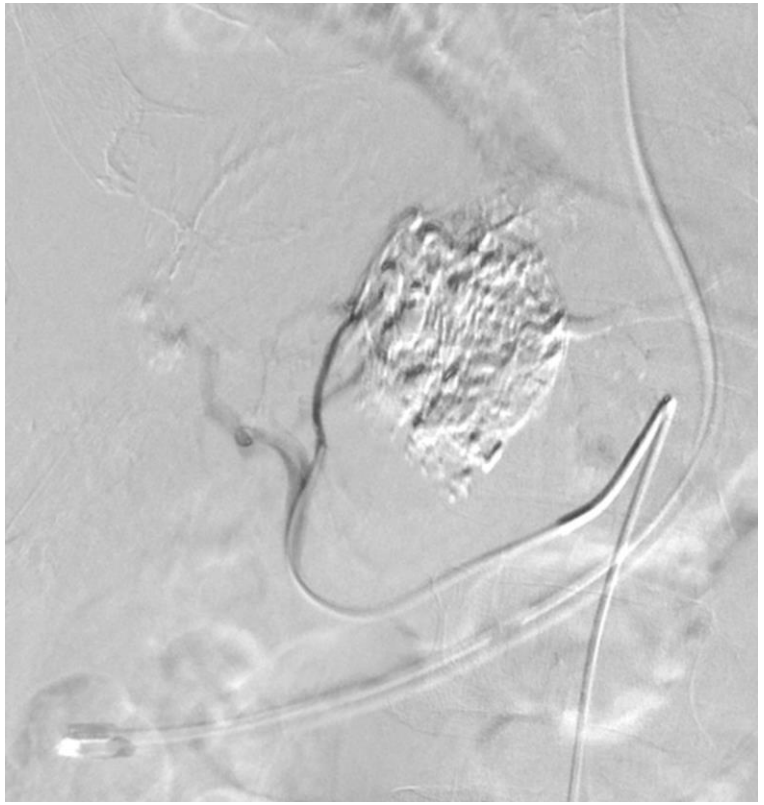
SMA Angiogram



Microcatheter in the feeding artery

Conclusion:

- This case depicts the importance of the knowledge of the variant anatomy and still how that may not be enough to face the challenges of the cases and how crucial it is for review and re-visit cross sectional imaging.



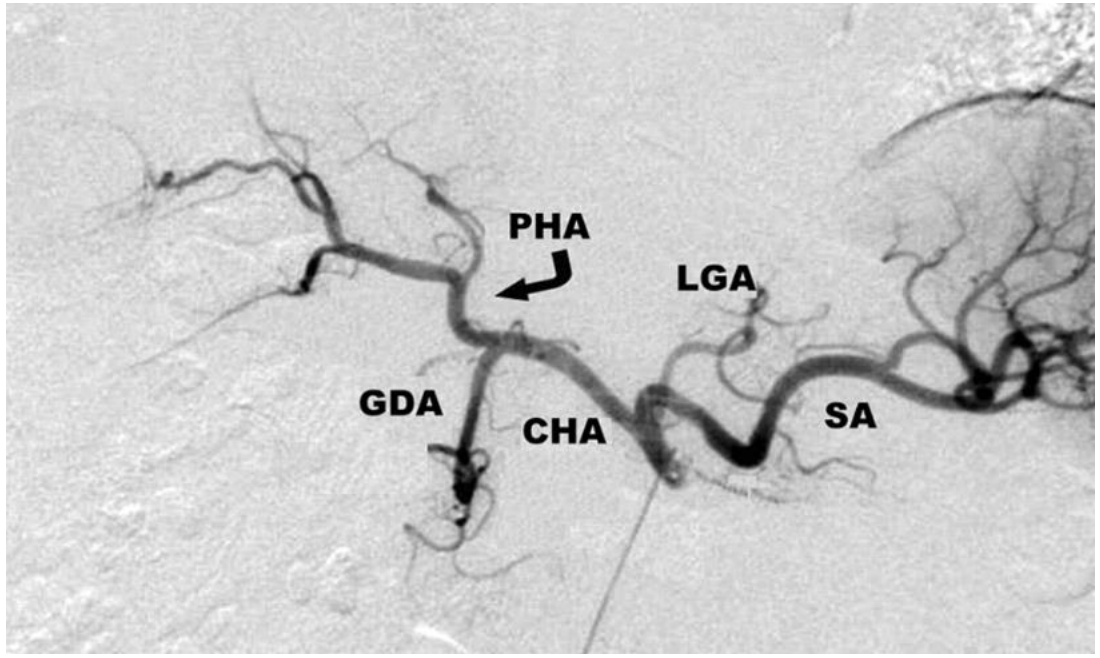
Completion of TACE

References:

- Anatomy of Liver arteries for Interventional Radiology, S. Favelier et al, Diagnostic and Interventional Imaging, Volume 96, Issue 6, 2015

- Anatomic Variations of the Hepatic Artery in 5625 Patients, Tae Won Choi et al, Radiology: Cardiothoracic Imaging 2021 3:4

- Transarterial Chemoembolization for Hepatocellular Carcinoma: An old method, now flavor of the day, M. Boulin et al, Diagnostic and Interventional Imaging, Volume 85, Issue 6, 2018



THANK YOU