

Subtyping of liver adenoma's



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Adenomas (1)

Liver Adenoma can present in various ways

- Usually asymptomatic
- Sometimes symptomatic:
 - *Bleeding*
 - *Very seldom: malignant degeneration*

Note: on Pathology DD HCC and Adenoma often difficult

Note: Biopsy unreliable for DD adenoma/HCC

- Sometimes multiple; if > 4 : adenomatosis
- Often OAC dependent, so discontinuation of OAC
- If symptomatic and adenoma > 5 cm: excision
- Recent subtyping adenomas with immunohistochemistry



Adenomas (2)

- Subtyping
 1. 40-45% HNF α 1 inh
 - *Fat (> 80%) adenomas*
Little/no chance bleeding/HCC
B-Catenine –
 - *Typical MRI: fat, modest enhancement*
 2. Inflammatory adenoma (ex Teleangiectatic FNH)
 - *Part of metabolic syndrome*
 - *Chance for bleeding*
 - *Little chance for HCC*
 - *Low % B-Catenine +*
 - *Typical MRI: T2 met ring (atol sign)*
intense and persistent enhancement

3. 10-15 % B-Catenine +

- High chance for HCC
- (if HCC: 40% + for B-Catenine)
- MRI: not typical

4. Unclassified (non 1,2,3,)

- Higher chance for HCC
- MRI: not typical

Adenomas 4



Consequences of histochemical subtyping: no consensus yet

- In asymptomatic adenomen
 - *Biopsy for assessment B-Catenine?*
 - *B-Catenine +: resection?*
- MRI subtyping in 3 typen:
 - Alfa 1 inh: fat, little enhancement*
 - Inflammatory: T2 high and atol sign. Persistent enhancement?*
 - Non a, non b.*
- Clinical consequences of MRI appearance not yet clear



Atypical features adenoma and FNH

- 1- Dependent on experience
- 2- Scar more often in FNH, but sometimes in adenoma
 - Look for other features:*
 - Lots of fat: adenoma
 - Minimal enhancement:adenoma
 - Atoll sign: adenoma
 - cloud-like, broccoli-like strong enhancement: FNH
- 3- Use of liver-specific contrast for DD FNH vd non-FNH
 - EOB-GDTPA (Primovist)*
 - BOPTA (Multihance)*
- 4- When in doubt: biopsy (needs experienced pathologist)