Case Report

Case Report

- ✓ 60 years old, female
- ✓ Obesity (BMI: 31 Kg/m^2)
- ✓ Type 2 diabetes, hypertension and dyslipidemia
- ✓ No excessive alcohol intake or tobacco use
- ✓ Meds: Losartan, Metformin, Atorvastatin

Case Report

- ✓ **US (10/2014)** – Severe steatosis and no others abnormalities
  - ✓ Previous US (9/2013) – Moderate steatosis

Case Report

Lab Nov/ 2014:

- ✓ Platelet 190.000/mm3
- ✓ G 172 / HbA1c 8,2%
- ✓ Cholest 211/ HDL 32/ LDL 124/ Trig 184
- ✓ ALT 34 (44) / AST 30 (41) / GGT 108 (60)

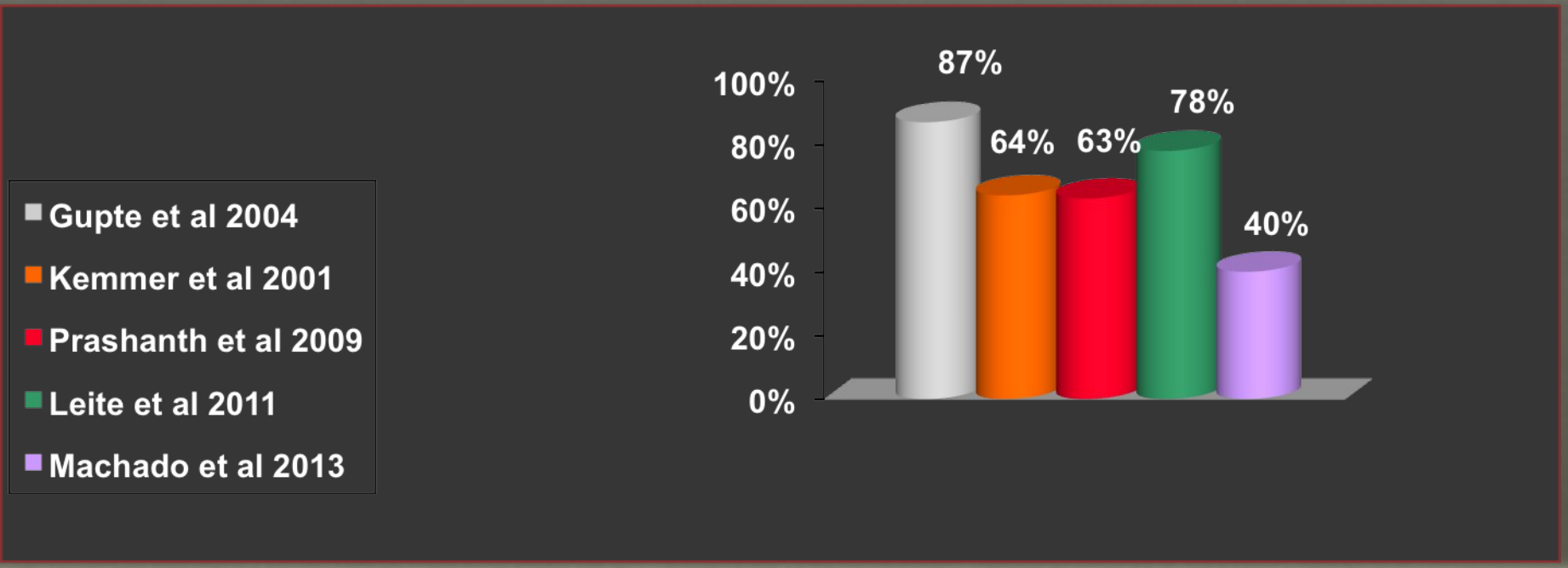
Case Report

Proposed:

- ✓ Diet + exercises - Weight loss!
- ✓ Better control of DM
- ✓ Normal ALT - any evaluation?

Case Report

NASH and liver biopsy in DM patients



- 32 - 92 patients.
- Diabetes: 7 – 8y.
- High ALT/ AST: 15 – 38%.

Case Report

- ✓ Something else?

  Non invasive markers?

  Liver biopsy?

- ✓ Come back – When?

Case Report

Aug/ 2015:

- ✓ BMI: 32 Kg/m^2
- ✓ Lab 07/2015: Platelet 190.000/mm3
- ✓ G 147 / HbA1c 7,6%
- ✓ Cholest 206/ HDL 34/ LDL 120/ Trig 164
- ✓ ALT 40 (44) / AST 32 (41) / GGT 158 (60)

Case Report

Aug/ 2015:

- ✓ US (07/2015) – Severe steatosis and liver with "discrete irregular margins". Normal Spleen.

Case Report

Aug/ 2015:

- ✓ NAFLD Fibrosis *Score*: 2.0.

Case Report

- ✓ NAFLD *Score* is used to distiguish patients who have F3/F4 and do not have advanced fibrosis (F0-F2).
- ✓ Area under the ROC curve of 0.88 (95% CI 0.85-0.92).

Case Report

- ✓ < -1.455: predictor of absence of significant fibrosis (F0-F2), NPV 93%.
- ✓ >0.675: predictor of presence of significant fibrosis (F3-F4), PPV 90%.

Case Report

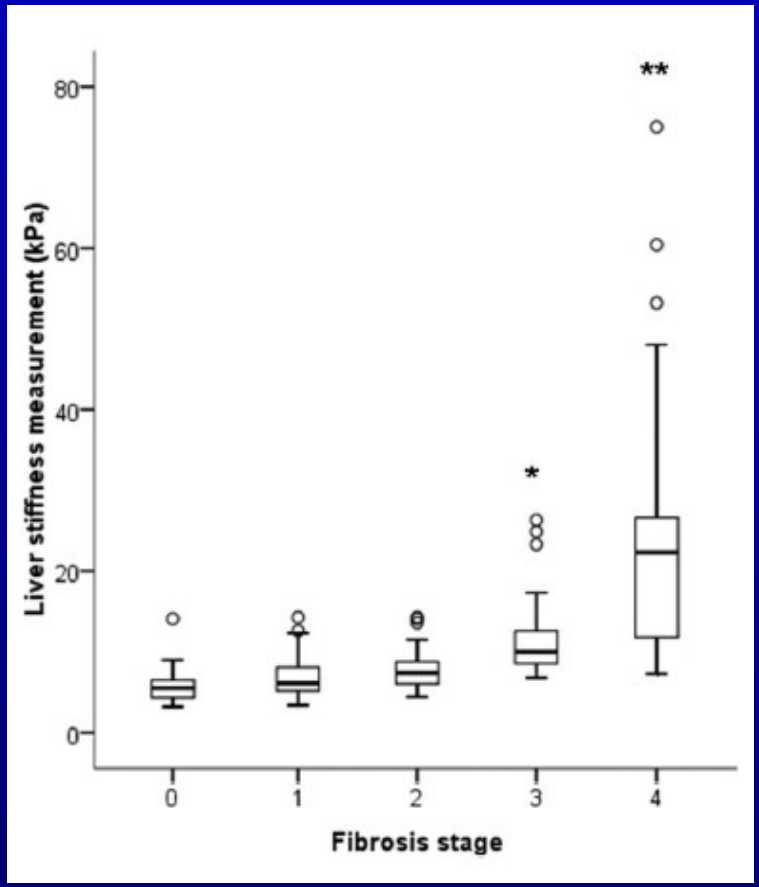
Aug/ 2015:

- ✓ Liver elastography - FibroScan® - (XL probe): 10 kPa/ IQR 5%/ SR 100%/ CAP 376/ IQR 28.

Case Report

N = 246

- F0/F1 ≤ 5,5 kPa
- F1 – 5,6 kPa
- F2 – 7,1 kPa
- F3 – 9,6 kPa (PPV – 72%/ NPV – 93%)
- F4 > 20 kPa
- F4 – 10,3 kPa (PPV – 46%/ NPV – 99%)



Wong, et al. Hepatology 2010

Case Report

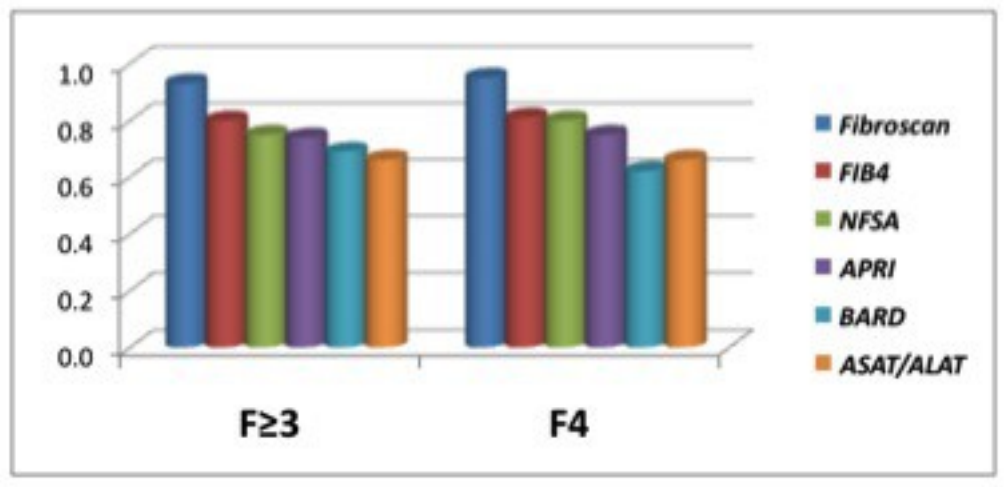


Table 2. Accuracy of Transient Elastography

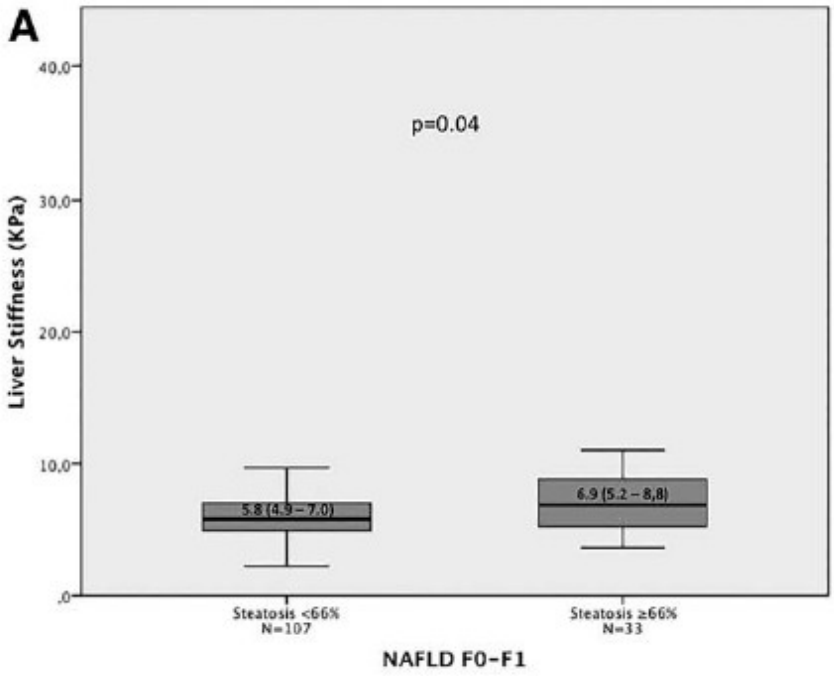
Stage	AUROC	Cutoff (kPa)	Sensitivity (%)	Specificity (%)	PPV (%)	NPV (%)	LR+	LR−
≥F2	0.84 (0.79–0.90)	5.8	91.1	50.3	56.1	89.0	1.8	0.18
		7.0	79.2	75.9	69.6	84.0	3.3	0.27
		9.0	52.5	91.7	81.5	73.5	6.3	0.52
≥F3	0.93 (0.89–0.96)	7.9	91.1	75.3	52.0	96.6	3.7	0.12
		8.7	83.9	83.2	59.5	94.6	5.0	0.19
		9.6	75.0	91.6	72.4	92.6	8.9	0.27
F4	0.95 (0.91–0.99)	10.3	92.0	87.8	46.0	99.0	7.5	0.091
		10.3	92.0	87.8	46.0	99.0	7.5	0.091
		11.5	76.0	91.0	48.7	97.1	8.4	0.26

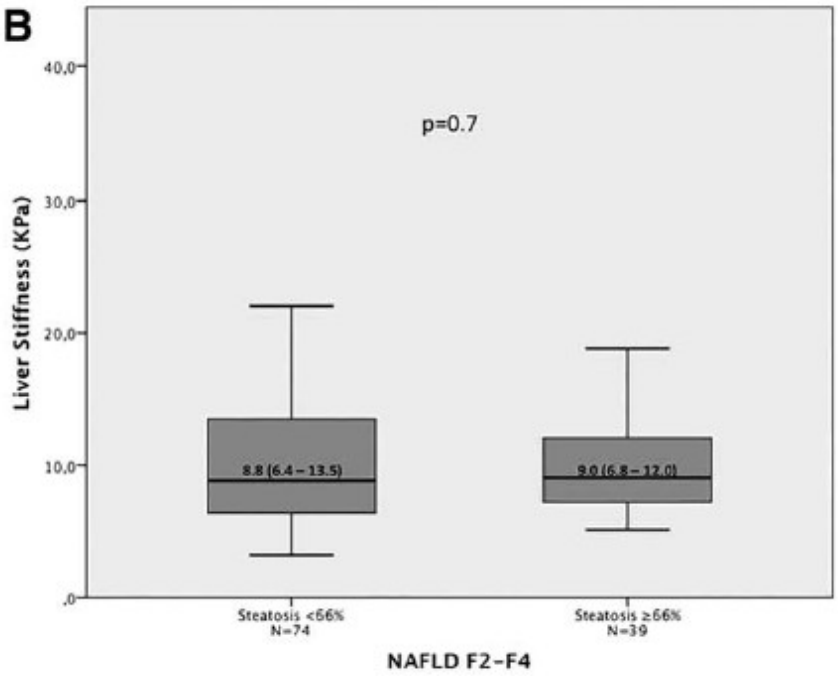
For each fibrosis stage, cutoffs with sensitivity >90%, highest overall accuracy and specificity >90% were presented.

Wong, et al. Hepatology 2010

Case Report

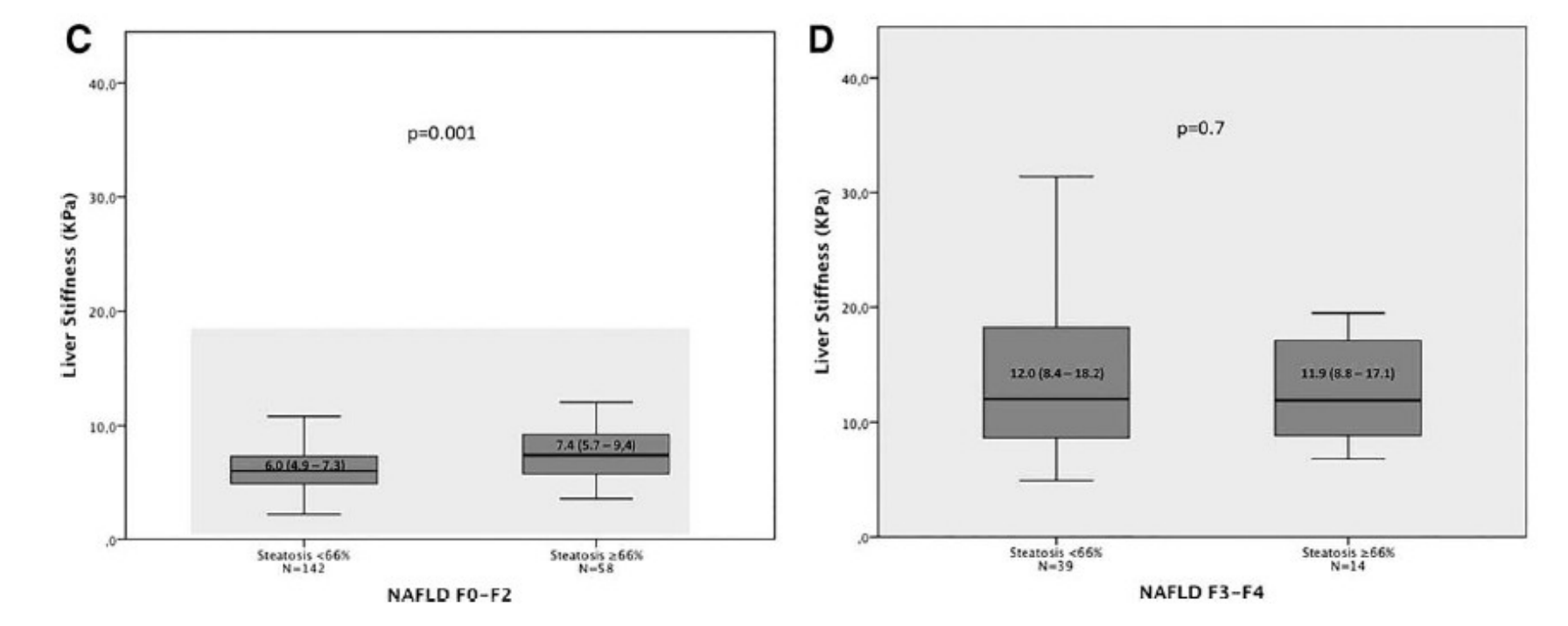
N = 253





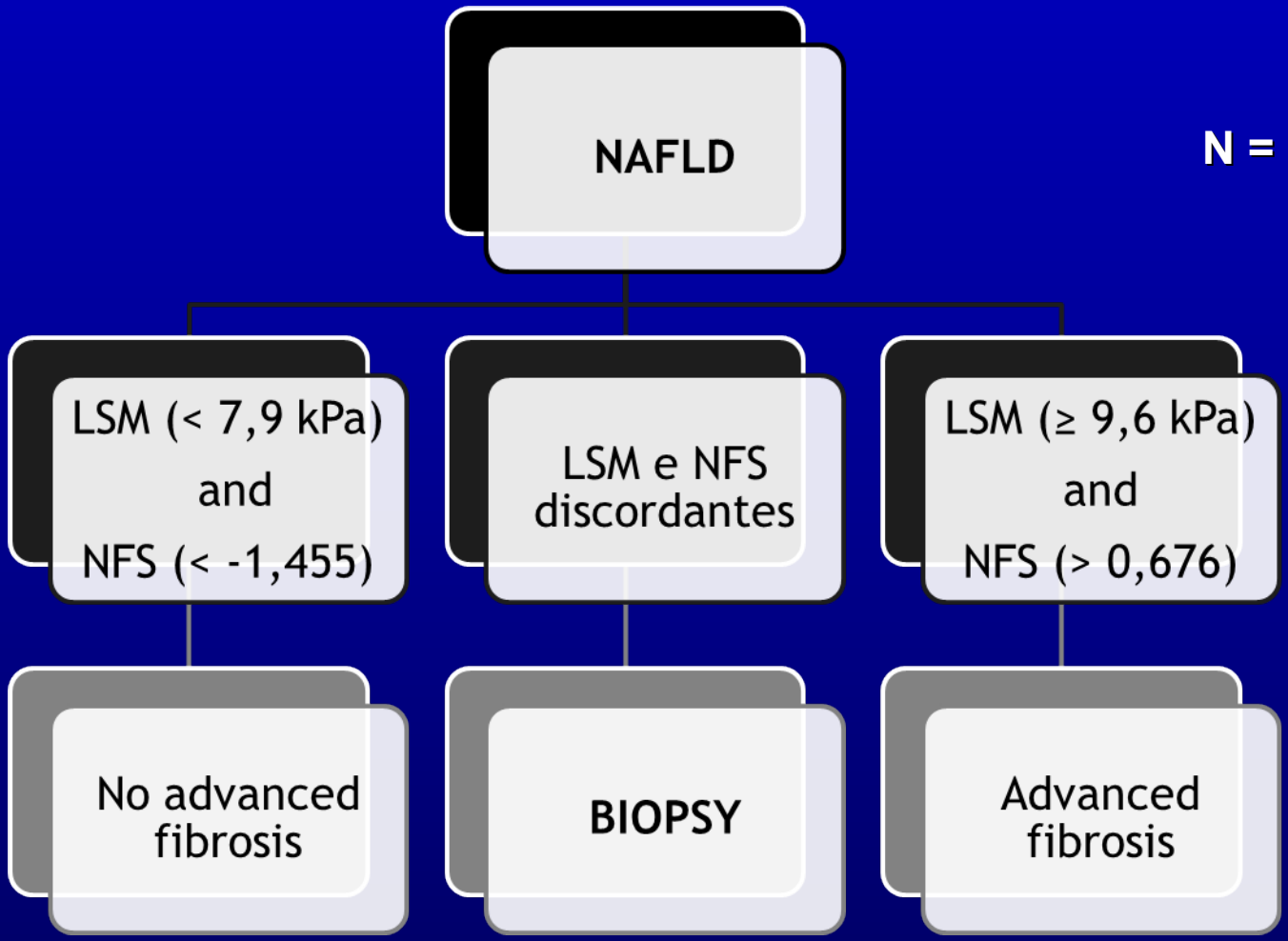
Petta, et al. Hepatology 2015

Case Report



Petta, et al. Hepatology 2015

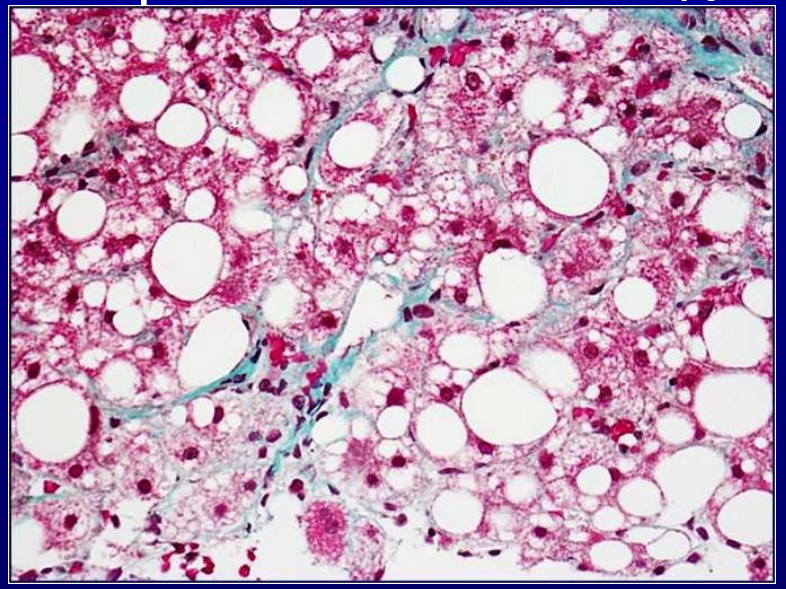
Case Report



Petta, et al. Liver Int 2014

Case Report

- **Liver biopsy 10/2015:** 1.8 cm, 16 PT, lobular inflammation polymorphonuclear leukocytes and mononuclear cells), hepatocellular balloning (zone 3), perisinusoidal fibrosis (zone 3) and fibrosis expansion of most portal areas, short fibrous septa. Steatosis > 60%.



Case Report

- ✓ Emphasis: Diet + exercises - Weight loss!
- ✓ Better control of DM!
- ✓ Started Pioglitazon and Vit E

Case Report

Nov/ 2016:

- ✓ BMI: 28 Kg/m^2
- ✓ Lab 10/2016: Platelet 200.000/mm3
- ✓ G 126 / HbA1c 7,0%
- ✓ Cholest 190/ HDL 33/ LDL 100/ Trig 137
- ✓ ALT 30 (44) / AST 28 (41) / GGT 84 (60)

Case Report

Nov/ 2016:

✓ NAFLD Fibrosis *Score*: 2.0.

✓ Liver elastography - FibroScan® - (XL probe): 7,2 kPa/

IQR 8%/ SR 100%/ CAP 276/ IQR 20.

Esteatose Hepática na DHGNA (de Ledinghen) (estudo com maior n de pacientes com DHGNA)
<215 : S0 (< 11%)
216- 252 : S1 (entre 11 e 33%)
253 - 296 : S2 (entre 33 e 66%)
>296 – S3 (>=66%)

Esteatose Hepática na DHGNA (Sasso)
<237 : S0 (< 11%)
237- 259 : S1 (entre 11 e 33%)
260 - 292 : S2 (entre 33 e 66%)
>292 – S3 (>=66%)

CAP

- Controlled Attenuation Parameter
- “FibroScan -based tool”
- Non Invasive evaluation of Steatosis