

XXVIII IFSO World Congress

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CSI



OPTIMIZING LIVER FIBROSIS SCREENING IN METABOLIC BARIATRIC SURGERY: A SIMPLE AND EFFECTIVE APPROACH

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Combined Therapies, The Dawn of a New Era

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Disclosure Slide

Nothing to disclose



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Background



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Nonalcoholic fatty liver disease (NAFLD):

1. Most common cause of chronic liver disease (25%)
2. Highest risk of disease progression to cirrhosis
3. 2nd cause of HCC and 3rd cause of decompensated cirrhosis (US)

Lifestyle changes, diet and physical activity, **BARIATRIC SURGERY (BS)** – resolution of NAFLD

Reversible disease

What is the most accurate and least invasive method for preoperative staging of advanced liver disease?

Methods



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- Single-center retrospective observational study
- **n = 239** - All of them underwent BS from 2021 to 2024
- 70% women; Mean Age 48 y.o. (+/- 9.6)
- Mean **BMI 42.9 kg/m²** (+/- 4.9)
- Most frequent comorbidities: **Hypertension (47%), Dyslipidaemia (43%) and Diabetes Mellitus (30%)**
- Alcohol Consumption
 1. Never 57.3%
 2. Not now 12.1%
 3. **Sometimes (NOT alcohol abuse!): 30.6%**
- **Abdominal ultrasound is not mandatory prior to BS**

$$\text{FIB-4} = \frac{\text{Edad (años)} \times \text{AST (U/L)}}{\text{Plaquetas (10}^9\text{/L)} \times \sqrt{\text{ALT (U/L)}}}$$

$$\text{APRI} = \left(\frac{\text{AST}}{\text{AST ULN}} \right) \div \text{Plaquetas (10}^9\text{/L)} \times 100$$

$$\text{LRS} = 0.072 \times \text{Edad} + 0.98 \times \ln(\text{Bilirrubina}) - 0.74 \times \ln(\text{Plaquetas}) \\ + 1.29 \times \ln(\text{AST}) - 3.58$$

Results



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	Low Risk	Intermediate Risk	High Risk	
FIB4	< 1,3	1,3 – 2,67	> 2,67	
	218 (91,2%)	19 (7,9%)	2 (0,8%)	
APRI	<0,5	0,5 – 1,5	> 1,5	
	225 (94,1%)	13 (5,4%)	1 (0,4%)	
LiverRisk Score	<6	6-10	10-15	>15
	179 (74,9%)	58 (24,3%)	2 (0,8%)	0 (0%)

	Sensibilitat	Especificitat	Quocient de probabilitat positiva	Quocient de probabilitat negativa
FIB4 ≥ 1,3	85,7%	93,5%	13,2	0,15
FIB4 ≥ 2,67	28,6%	100%	No calculable	0,71
APRI ≥ 0,5	57,1%	95,7%	13,2	0,45
APRI ≥ 1,5	0%	99,6%	No calculable	1,00
LiverRisk ≥ 10	28,6%	100%	No calculable	0,71
LiverRisk ≥ 15	0%	100%	No calculable	1,00

Conclusion

- FIB-4 is the most useful tool**
- IF FIB-4 is > 1'3 we have to make more tests before the surgery to detect NAFLD**



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