

Impact of weight management in chronic HCV Egyptian patients on liver fibrosis .

By:

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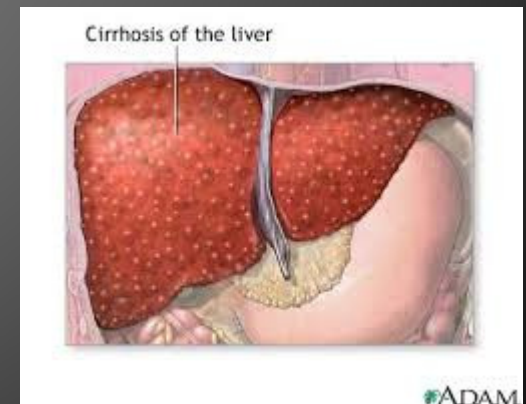
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ANLP 2010

Liver Cirrhosis in Egypt.

- According to the Egyptian ministry of health (2009) statistics mentioned that up to 11 million Egyptian suffers from Viral hepatitis (C and B).
- These patients are of great risk of developing liver cirrhosis (Portal hypertension) and Hepatocellular carcinoma (HCC).



Egyptian viral hepatitis burden

- Egypt has a very high prevalence of HCV and a high morbidity and mortality from chronic liver disease, cirrhosis, and hepatocellular carcinoma. Approximately 20% of Egyptian blood donors are anti-HCV positive. (*WHO*).
- Approximately 5-7 million Egyptians carry antibodies for HCV and 3.3 million are chronically infected with HBV. (*MOHP*).

NHTMRI



Obesity epidemic in Egypt.

- 34.3 percent of men (aged 15-59) were overweight.
- 18.2 percent of men (aged 15-59) were obese.
- 28.3 percent of women (aged 15-49) were overweight.
- 39.5 percent of women (aged 15-49) were obese.

WorldObesity demographic Health Survey 2008



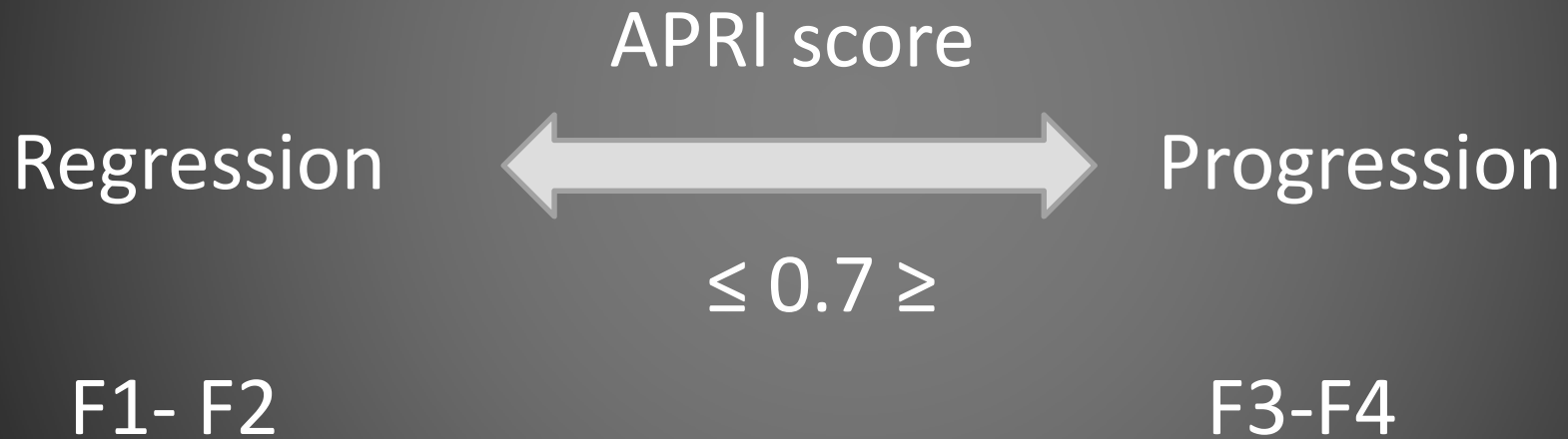
HCV vs NASH



Non-invasive parameters of Fibrosis

- Aminotransferases (ALT-AST)
- Platelets.
- S. Albumin

Non-invasive parameters of Fibrosis



AASLD PRACTICE GUIDELINE

The Diagnosis and Management of Non-Alcoholic Fatty Liver Disease: Practice Guideline by the American Association for the Study of Liver Diseases, American College of Gastroenterology, and the American Gastroenterological Association

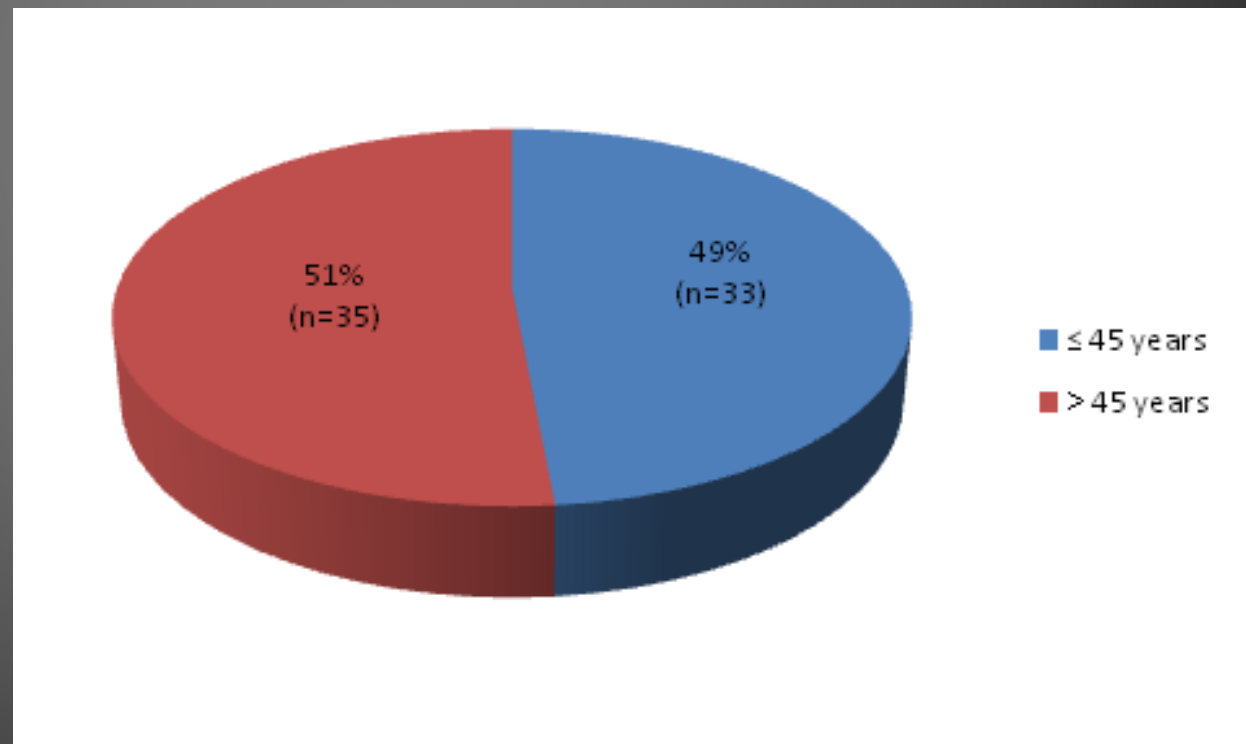
Naga Chalasani, MD, FACP,¹ Zobair Younossi, MD, FACP,² Joel E. Lavine, MD, PhD,³ Anna Mae Diehl, MD,⁴ Elizabeth M. Brunt, MD,⁵ Kenneth Cusi, MD,⁶ Michael Charlton, MD,⁷ and Arun J. Sanyal, MD⁸

Recommendations

17. Loss of at least 3-5% of body weight appears necessary to improve steatosis, but a greater weight loss (up to 10%) may be needed to improve necroinflammation. (Strength – 1, Evidence - B)

Demographic data

- 68 HCV obese (naïve) patients enrolled for INF therapy not on any liver support.



Diet plan

- We used a weight management programme which was hypocaloric and rich in fibers tailored according to every case .
- One plate of Egyptian beans , big plate of salad and at least one serving of fruits per day were common parameters.
- In addition to mild exercise.



Comparing parameters before and after diet:

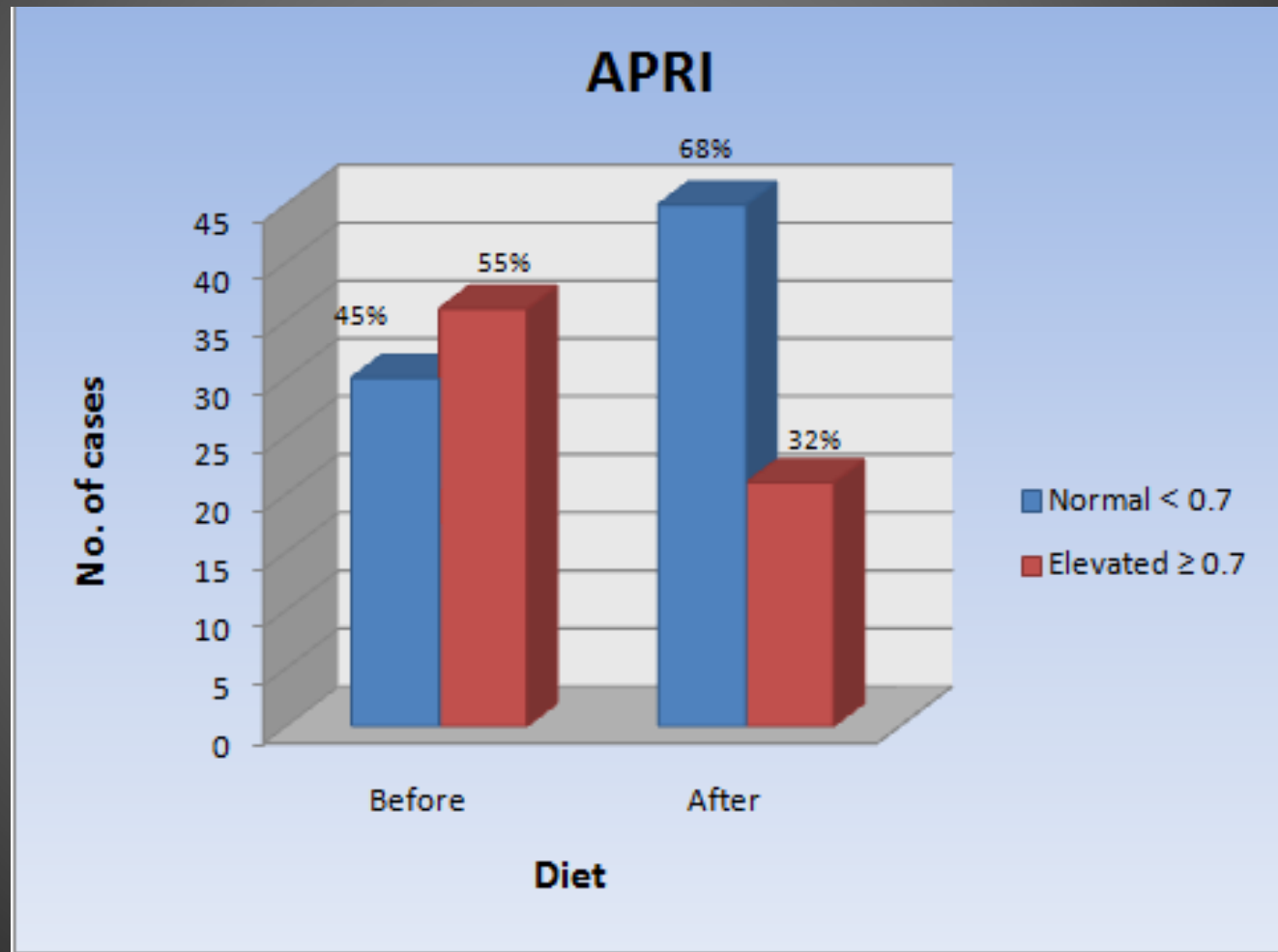
Variable	Before diet	After diet	p-value
BMI(Kg/m ²)	38.08±3.93	34.54±4.07	0.0001
ALT*	46 (8-324)	30.5 (9- 220)	0.0001
AST*	51 (10-282)	35.49 (7-230)	0.0001
APRI*	0.75 (0.13-6.58)	0.72 (0.11-4.12)	0.0001
Platelet count (×10 ³ /mm ³)	209.58±69.91	215.71±70.46	0.408
AAR	1.1±0.34	1.11±0.41	0.760

* non parametric distribution of data so Wilcoxon test used, paired sample t-test used in the parametric data

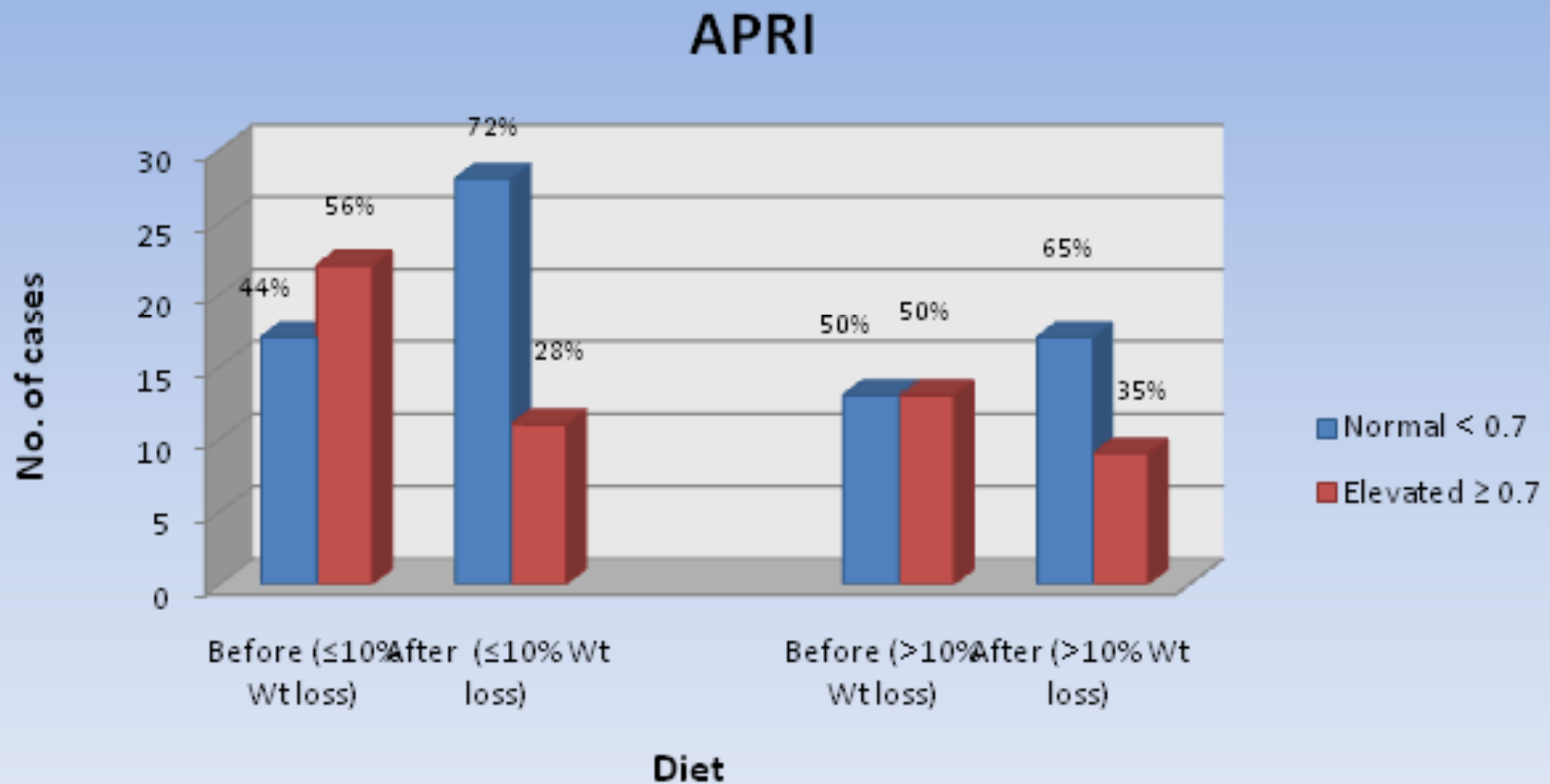
AST / ALT ratio behavior depending on weight loss.



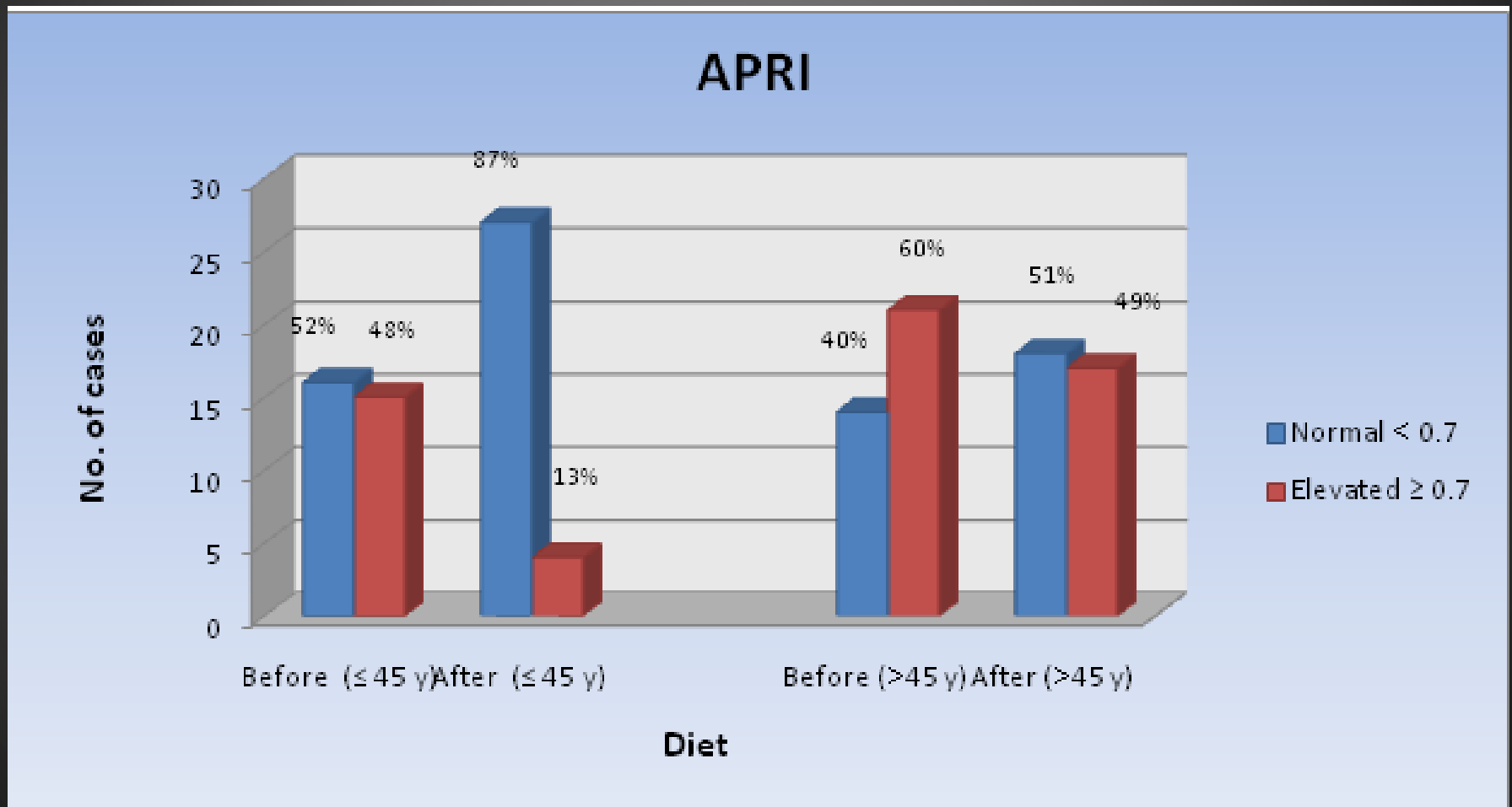
APRI score behavior depending on weight loss.



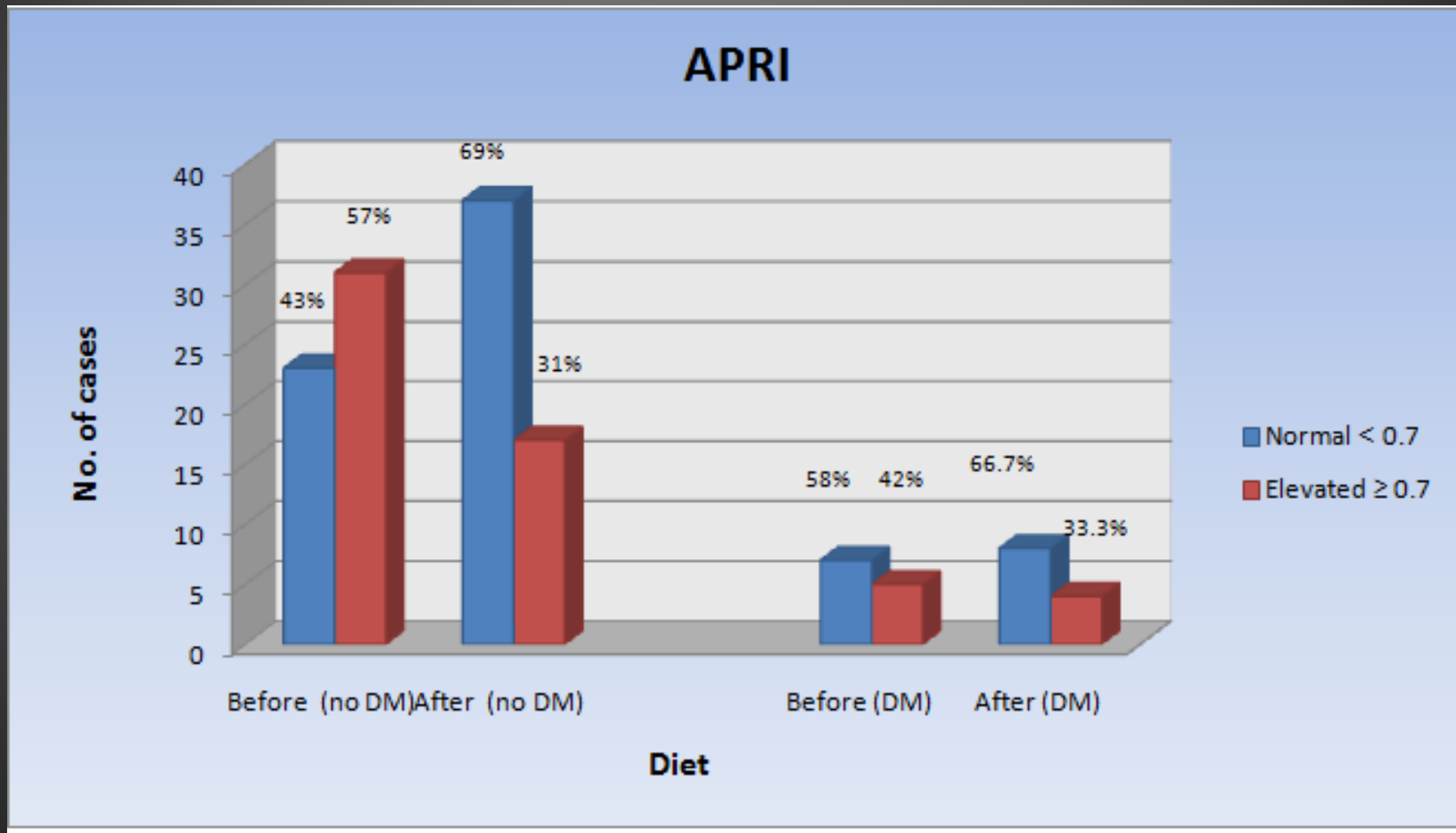
Impact of diet modification on APRI score



APRI score behavior depending on age group :



APRI score behavior in diabetic patients compared to non diabetic



Conclusion.

- Overweight and obesity represented as “Hepatic steatosis” are underestimated risk factors in HCV chronic patients.
- Morbid obesity and HCV Can act synergistically with liver fibrosis and fighting each one is not less important than the other .

Recommendations

- Weight management programmes (or even bariatric surgeries) should be prescribed to every patient who is HCV +ve and obese.

Thanks