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## INTRODUCTION

- Myelodysplastic syndromes (MDS) hematopoietic stem-cell characterized by ineffective production.
- Most MDS patients eventually become red blood cell transfusion dependent, risking iron overload, which may lead to cardiac and hepatic failure.
- Liver biopsy is the gold standard for liver Ο damage assessment. However it is associated with a number of complications.



Liver transient elastography (TE, Fibrocan<sup>®</sup>-Echosens Paris) allows the estimation of hepatic fibrosis through the measurement of liver stiffness.

## AIM

Our aim was to explore possible associations of liver stiffness measured with TE, with transfusion overload and ferritin level in a group of patients with MDS.

### PATIENTS AND METHODS

- 20 patients with MDS were studied. Ο
- Patients with other causes of chronic liver  $\bigcirc$ disease were excluded.
- The following variables were collected the 0 same day of TE evaluation: Serum ferritin, hemoglobin, platelets, aminotransferases, gglutamiltransferase (GGT), total bilirubin

# THE ROLE OF TRANSIENT ELASTOGRAPHY IN THE ASSESSMENT OF LIVER FIBROSIS IN PATIENTS WITH MYELODYSPLASTIC SYNDROMES

RES	ULTS		RESULTS						
<b>DEMOGRAPHIC</b>	CHARACTERIST	ICS	Level of serum ferritin is associated with liver stiffness in patients with MDS						
	17	85%							
-range)	73.9 years	60-87	Mann Whitney 2500						
-range)	24.5 Kg/m <sup>2</sup>	21-29	E 2000 N=12 P=0.005						
1DS (N-%)	11	55%	L 1500						
diagnosis (mean-	4.6 years	1-21	E 1000 N=8 500						
ns ≥25 units	12	60%	ອ 500 ດ						
reatment (N-%)	5	25%							
ASSOCIATION OF LIVER STIFFNESS			MULTIVARIATE ANALYSIS						
TORY DATA	Mean (range)	P (Pearson)	ModelLog (stiffness)(constant)P < 0.0001						
	1603 (67-6399)	Log (stiffness) 0.004	Ferritin         P = 0.035           GGT         P = 0.026						
μL)	238 (10-800)	<b>0.002</b>	PLT P = 0.091						
	44 (10-134)	<i>&lt;0.001</i>	<ul> <li>CONCLUSIONS</li> <li>Our data is suggesting that liver stiffness measured by TE was found to be correlated with serum ferritin level, GGT and platelets.</li> </ul>						
	20 (12-49)	<i>0.917</i>							
	24 (6-81)	<i>0.553</i>	<ul> <li>Further investigation is needed in order to explore the role of TE for the assessment of chelation therapy on liver fibrosis in patients with MDS syndromes and post-transfusion iron overload.</li> </ul>						
No conflict	0.94 (0.26-2.5) t of interest	0.637							

RESULTS				RESULTS					
DEMOGRAPHIC CHARACTERISTICS				Level of serum ferritin is associated with liver stiffness					
Male(N - %)	17	85%	in patients with MDS						
Age (mean -range)	73.9 years	60-87	erum Ferritin	2500	Mann Whitney				
BMI (mean-range)	24.5 Kg/m <sup>2</sup>	21-29		2000	P=0.005	N=12			
High-risk MDS (N-%)	11	55%		1500					
Years from diagnosis (mean- range)	4.6 years	1-21		1000 500	N=8				
Transfusions ≥25 units	12	60%	ഗ്	0					
<b>Chelation treatment (N-%)</b>	5	25%			stif ≤ 7,1 stif	> 7,1			
ASSOCIATION OF LIVER STIFFNESS			MULTIVARIATE ANALYSIS						
LABORATORY DATA	Mean (range)	P (Pearson)		lel stant)	Log (stiffness) P < 0.0001				
Ferritin	1603	Log (stiffness)	Ferri	itin	P = 0.035				
(µg/mL)	(67-6399)	0.004	GGT		P = 0.026				
PLT	238	0.002	PLT		P = 0.091				
(x10 <sup>3</sup> cells/μL)	(10-800)								
GGT (IU/L)	44 <0.001		CONCLUSIONS						
AST	(10-134) 20	0.917	<ul> <li>Our data is suggesting that liver stiffness measured by TE was found to be correlated with serum ferritin</li> </ul>						
(IU/L)	(12-49)								
ALT	24	0.553		<ul> <li>level, GGT and platelets.</li> <li>Further investigation is needed in order to explore</li> </ul>					
(IU/L)	(6-81)			the role of TE for the assessment of chelation					
Bilirubin	0.94	0.637							
(mg/dL)	(0.26-2.5)			therapy on liver fibrosis in patients with MDS syndromes and post-transfusion iron overload.					
No conflict of interest				Syndromes and post-transfusion non overload.					

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(x10 <sup>3</sup> cells/µL)	(10-800)							
GGT	44		CONCLUSIONS					
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	20 (12,40)	0.917		by TE was found to be correlated with serum ferritin				
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ALI (IU/L)			<ul> <li>Further investigation is needed in order to explore the role of TE for the assessment of chelation</li> </ul>					
Bilirubin								
(mg/dL) (0.26-2.5)		0.637		therapy on liver fibrosis in patients with MDS				
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are malignancies blood cell



