SENSORY PROFILE OF DIABETIC PATIENTS EVALUATED BY QUANTITATIVE SENSORIAL TEST AND ITS IMPACT ON QUALITY OF LIFE

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INTRODUCTION

- Diabetic neuropathy (ND) is characterized as heterogeneous and complex clinical syndrome associated with the progressive loss of nervous fiber of the peripheral somatic and autonomic nervous system. [1]
- In this process, it is predominant the involvement of the small fibers (Aδ and C), present in the epidermis,
- ND reaches 50% of diabetic patients, in which a significant portion presents generalized pain and are refractory to conventional treatments. [2,3]

OBJECTIVES:

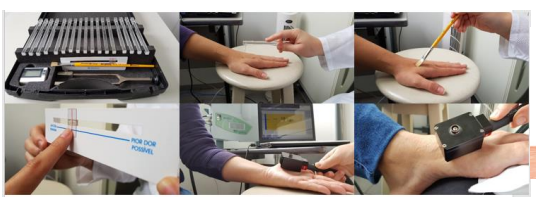
- ✓ Characterize exteroceptive phenotypical profile of diabetic patients
- ✓ Evaluate the impact of sensorial disabilities on their quality of life
- ✓ Relate to or with the small fibers

METHODS

Quantitative, decriptive and transversal study was performed with diabetic patients (n=57) of the University of São Paulo Hospital (**CAEE Nº: 85121318.2.0000.5467**).

BIP; McGill; DN4; HADS Catastrophism

Skin Biopsy



RESULTS

Until this momment, was evaluated 57 volunteers, 29 men (51%; mean age: 60± 2,62) and 28 women (49%; mean age: 58 ±2,79) between them 60% (n=25) were diagnosed with diabetes up 10 years.

DN4

Neuropatic Pain 44%

Nociceptive Pain 26%

No Pain 30%

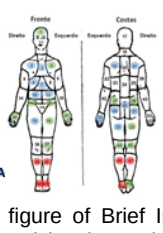


FIGURE A

Figure A. Adapted representatives figure of Brief Inventory of Pain showing the areas more selected by the patients for the worst intensity of pain

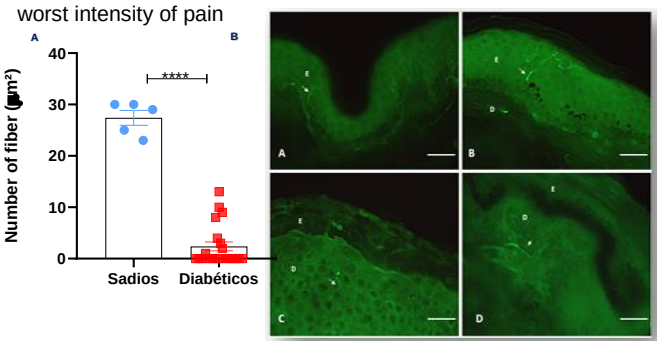
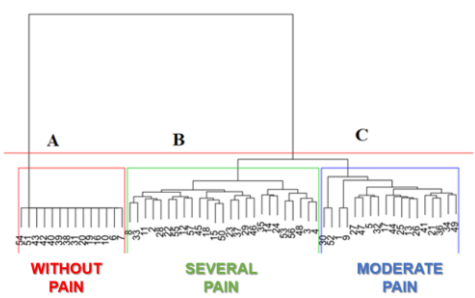


FIGURE H. A and B. Intraepidermal fiber count of diabetic and control patients. The images were subjected to fluorescence microscopy. Compared to the control group, there is a significant decrease in the p <0.0001 fibers evaluated by the unpaired T-test, an area equivalent to 212.1509μm^2

McGill Questionnaire Evaluation - Groups in sensitive and affective dimensions



Cluster B – Several Pain

Sensory Dimension:

Jumping 80%

Tugging 80%

Sore 76%

Affective Dimension:

Troublesome 60%

FIGURE B

Figure B- McGill. Cluster A, corresponds to patients without pain, Cluster B, corresponds to patients with severe pain and Cluster C, corresponds to patients with mild or moderate pain.

Exteroceptive sensitivity profiles assessed by quantitative sensory testing

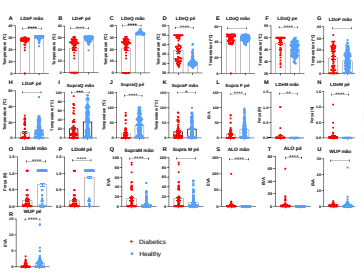


FIGURE C

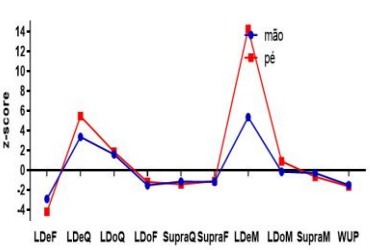


FIGURE E

Figure C- Graphical representation of the TQS values.) compared by the Mann-Whitney test, considering * p <0.05, ** p <0.01, *** p <0.001 and **** p <0.0001, as static significance. **Figure E - Figura 9- Representação gráfica de interpretação de diagnóstico do TQS.** Figura ilustrativa de um paciente diabético avaliado pelo TQS, membro superior e inferior, considerando os valores de *Z-score* fora de IC95%.

Impacts on quality of life

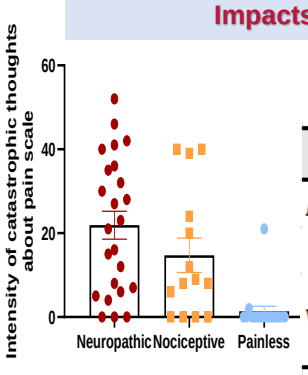


FIGURE G

	Pain	No Pain	*OR*
Anxiety or depression	30%	7%	3,7
Without anxiety or depression	40%	23%	

TABLE B

Figure G- ICTPS, obtained through the mean of the final score of all patients according to the mean score of the groups classified by DN4, with neuropathic pain (NP): 21, 92 ± 3,319; Nociceptive Pain (DNo): 14.71 ± 4.097; Without Pain (SD): 1.35 ± 1.23. **Table B-** Association of pain and impact on anxiety or depression. The Odds Ratio (OR) odds ratio calculation resulted in 3.7 suggesting a positive association between having painful syndromes and anxiety or depression.

CONCLUSION: The data obtained in this study characterize the pain profiles and exteroceptive sensitivity of diabetic patients, which may contribute to a better understanding of the pathophysiology of the disease and an analysis of neuropathic pain characteristics in these patients

REFERENCES* 1.TREEDE, R.-D. et al. Neurology, 2008. 2.BOULTON, JM et al. Diabetic neuropathies. , 2005. 3. TOTH, Cory C. et al, 2010.