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Plantar fascia fibroma lesion confirmed by magnetic resonance imaging in diabetic foot

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Introduction: In 2009, Bus et al. declared that pathology of the plantar aponeurosis may more accurately reveal the presence of claw toe deformity in diabetic patients. We suppose that pathological changes in the plantar aponeurosis may be similar to those found in Ledderhose disease (plantar fibromatosis). **Aim:** The aim of the study was to investigate the foot structure in Type 1 diabetes mellitus (DM) patients using magnetic resonance imaging (MRI) and consider the findings in relation to the changes in the connective tissue structure. **Methods:** The study involved 10 selected Type 1 diabetes mellitus patients: 5 men and 5 women at the age of 46 ± 8.0 years (mean \pm SD). The duration of diabetes was 31 ± 4.9 years (mean \pm SD). Assessment of the selected patients was performed using a standardized questionnaire and examination. The feet of all the studied patients were visualized by MRI using a 1.5-Tesla scanner (Siemens Magnetom Avanto). **Results:** In 2 (20%) studied men - 53 year-old man and 63-year-old male patients we have revealed plantar fibroma. **Conclusions:** The results of the study provide us with a possibility to consider the following assumptions:

1. DM may cause thickening of the *plantar aponeurosis* similar to such found in Ledderhose disease (plantar fibromatosis).
2. The role of excessive physical exercise applied on the foot (plantar fascia) region in long-lasting diabetics has doubtful benefit taking into account that changes in it resemble a connective tissue pathology (fibromatosis).