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**OUR EXPERIENCE OF TRANSIENT ELASTOGRAPHY AND FIBROTEST® IN MONITORING PATIENTS TAKING METHOTREXATE FOR PSORIASIS**

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**Introduction** Frequent evaluation of liver enzymes, procollagen III peptide (PIIINP) levels, and periodic liver biopsy are used to

assess liver toxicity during methotrexate therapy for psoriasis, but some patients who proceed to biopsy do not have fibrosis or cirrhosis.

**Aims/Background** Our study aimed to evaluate transient elastography (TE) (Fibroscan<sup>®</sup>, Echosens, Paris) and Fibrotest<sup>®</sup> (Biopredictive, Cambridge) in patients taking methotrexate for psoriasis.

**Method** Chi square test was used for the comparison of dichotomous variables, and Mann-Whitney U test for continuous variables.

**Results** Forty-five patients (26 female, 58%), mean age 55 ( $\pm$ sd 14.6) years, had TE assessments. The median cumulative methotrexate dose was 3.3g (range 0.125–17.5). The mean body mass index (BMI) was 28.7 ( $\pm$ sd 7.2) kgm<sup>-2</sup>, and 62% were overweight or obese. Three (7%) patients had type 2 diabetes mellitus, and 13 (29%) had psoriatic arthritis (PsA). No patients reported excessive alcohol intake. Twenty-seven (60%) TE results were valid. The risk of TE failure was significantly higher in patients with a higher BMI ( $p < 0.01$ ). Of the 27 valid TE results, 6 (22%) were abnormal ( $\geq 7.1$  kPa). Of 21 patients with normal TE results, 4 had persistently elevated PIIINP levels, and did not have PsA. Twenty-nine patients had Fibrotest<sup>®</sup>, three (10%) of whom had abnormal results ( $\geq 0.31 / > F1$ ). Five liver biopsies were done because of persistently elevated PIIINP levels, and showed mild or moderate steatosis. Three of these could have been avoided based on normal TE or Fibrotest<sup>®</sup> results. Older age was associated with an abnormal TE result ( $p < 0.05$ ). Older patients, those on methotrexate for a longer duration, and with a higher cumulative dose were more likely to have an abnormal Fibrotest<sup>®</sup> result ( $p < 0.05$ ).

**Conclusion** We suggest that unnecessary liver biopsies may be avoided if abnormalities in at least two tests (PIIINP, TE or Fibrotest<sup>®</sup>) are required prior to biopsy. This strategy will need to be evaluated in prospective studies.

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