AB1141 UTILITY OF MUSCLE BIOPSY WITH NEEDLE IN A RHEUMATOLOGY SERVICE. A 12 YEARS EXPERIENCE

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Background: Muscle biopsy with needle is presented as a faster and less invasive alternative than conventional open biopsy for the diagnosis of some myopathies. However, its use as a diagnostic technique is still very limited in the Rheumatology services.

Objectives: To describe the experience of 12 years and the diagnostic usefulness of needle biopsy in a Rheumatology service.

Methods: Descriptive study including all patients who, since 2005, had undergone a needle biopsy in the Rheumatology service of the Parc Taulí University Hospital in Sabadell, as a diagnostic technique for suspected myopathy.

The technique was performed in all cases on the lateral aspect of the thigh, about 10 cm above the knee. After disinfection and local anaesthesia, an incision of 1 cm longitudinal to the thigh was made until reaching a depth of about 3–4 cm, then introducing the Bergstrom needle for the muscle biopsy (about 4–5 muscle fragments of 2–3 mm taken in different directions) from the vast lateral. Finally, the incision was sutured with a single stitch.

In obese patients, a previous ultrasound was performed to exactly knowing the depth at which the muscle sample should be taken.

The collected samples were sent fresh to the Pathology service, wrapped in a gauze moistened with 0.9% physiological saline solution.

Results: In these 12 years we have performed a needle biopsy on 49 patients (29 women). Age 52±10 years (range 25–70). The reason for performing the biopsy was always the increase of muscle enzymes, mainly creatine kinase (CK), which in 9 of the cases was isolated, without any underlying disease, myotoxic drugs or other symptoms. Eight patients presented myalgia or weakness as the only symptomatology. Twelve patients had a rheumatic or autoimmune disease, and in 7 of these 12 cases there was a suspicion of antimalarials myopathy. In 6 cases the suspicion was dermatomyositis and in 5 cases of vasculitis. The biopsy was performed in 4 patients with fibromyalgia and in a patient with diabetes. In 4 of the cases, the suspicion was a lipid-lowering drug myopathy.

In 48/49 cases (98%) sufficient muscle sample was obtained. The technique had only to be repeated in one patient due to insufficient or inadequate tissue. Only in 2/49 cases (4%) the histological diagnosis was not concordant with the definitive clinical diagnosis (dermatomyositis), which was confirmed in one patient with open muscle biopsy.

In 31 cases (63%) the biopsy was normal. Among the pathological biopsies, the most frequent histological diagnosis was polymyositis, in 12 cases. In 3 cases a dermatomyositis was confirmed, in 3 cases a vacuolar myopathy by antimalarials and in 1 case a necrotizing myopathy.

As complications, it should be noted that only 2/49 (4%) patients presented moderate pain, which subsided in less than a week with analgesia, and one patient presented a hematoma in the area. No case of wound infection was observed.

Conclusions: Muscle biopsy with a needle is a quick, simple, low invasive and safe technique that can be very useful in a Rheumatology department. The incorporation of this technique as a diagnostic tool should be extended to the majority of Rheumatology departments.

Disclosure of Interest: None declared

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AB1142 REDUCTION OF ABSOLUTE NUMBER OF CD4+CD25+FOXP3+ TREG CELLS IS ASSOCIATED WITH PATHOLOGICAL FEATURES OF PATIENTS WITH IDIOPATHIC INFLAMMATORY MYOPATHY

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Objectives: To explore the alterations and their significance of peripheral CD4⁺CD25⁺ FOXP3⁺ regulatory T cells (Tregs) and Th17 cells in Idiopathic inflammatory myopathy.

Methods: Clinical indicators of IIM cases (n=85) and healthy controls (n=60) were enrolled. The absolute number of peripheral Tregs and Th17 cells were analysed by flow cytometry. The clinical features were collected retrospectively. Since the data was disregarded from the normal distribution, the median four quantile method was used for statistical description. Two samples were compared with Mann-Whitney U test, and the correlation between variables was Spearman rank correlation analysis.

Results: (1) The absolute number of Treg cells in the patients was significantly lower than that in the control group ($P<0.05$); the ratio of Th17/Treg was also significantly higher than that in the control group ($P<0.05$); (2) Peripheral Treg cells levels were negatively correlated with CRP ($r=0.279$, $p<0.05$); (3) According to the involvement of important organs was classified into two groups: organ group and non-organ group. The absolute number of Treg cell in organ group is fewer than

that in non-organ group ($p<0.05$), and the ratio of Th17/Treg in organ group was significantly higher than that in non-organ group.⁴ The peripheral Th17 cell absolute number in patients with skeletal muscle inflammatory oedema was significantly higher than that of non-inflammatory oedema patients ($p<0.05$);⁶ The levels of Th17, Tregs and ratio of Th17/Treg did not correlated with pathological features of inflammatory infiltration ($p>0.05$).

Conclusions: The absolute number of peripheral Treg cells decreased significantly in IIM, and correlated with CRP. Patients with organ involvement had fewer Treg cells, and imbalance between Th17 and Treg. When muscle MRI appeared inflammatory oedema, it has a higher level of Th17 cells. Our results suggest that Treg cells plays an important role in the pathogenesis of IIM and increasing the number of Treg cells and maintaining Th17/Treg immune balance will become a new therapeutic strategy for IIM.

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AB1143 AUTOIMMUNE CHARACTERISTICS IN A COHORT OF 89 PATIENTS WITH PRIMARY BILIARY CHOLANGITIS

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Background: Primary biliary cholangitis (PBC) is associated to other autoimmune diseases with an unknown prevalence. Their treatment can prevent progression to liver cirrhosis and other systemic complications

Objectives: To describe the clinical and analytical autoimmune characteristics in a cohort of patients with PBC diagnosed and followed in a specific unit of Hepatic Diseases. All patients were also studied in the Autoimmune and Sistemics Diseases Unit of our hospital to check for the presence of extrahepatic autoimmune diseases.

Methods: We have studied patients with PBC diagnosed in our Service since 1994 who are currently under follow-up. The diagnosis of PBC was made taking into account: the presence of colostasis enzymes with positive anti-mitochondrial antibodies (AMA) and/or compatible liver biopsy

Results: We studied 89 patients with PBC. 81 of them were women (female/male ratio 10/1) with a mean age at diagnosis of 56 years (range 23–84 years). The mean follow-up was 106 months (range 9–286). IgM was elevated in 70% of the patients in whom it was found (56/80). The ANA were positive in 71% (61/86) and the AMA in 75% (67/89). 43% of patients AMA-negative PBC had other suggestive antibodies: 7 anti-centromere, 2 AMA-2 and 1 anti-sp-100. A liver biopsy was performed on 75 patients (87%), resulting in a diagnosis of 58% and useful to exclude other pathologies in the rest. In 18 patients (20%) an overlapping condition was diagnosed: PBC +Autoimmune hepatitis. In 11 patients (12%) a Reynolds syndrome was diagnosed: PBC +Scleroderma, in all of them Raynaud phenomenon was present. On another 11 of 41 (27%) Raynaud phenomenon was also present. In 17 patients (19%) there was a history or new diagnosis of autoimmune thyroiditis and in 13 patients (15%) of Sjögren syndrome. None of them was diagnosed of IgG4-related disease. Serum IgG4 was measured in 56 patients (63%) with a mean value of 36.6 mg/dL.^{2,8–125}

The patients with pure PBC were treated only with ursodeoxycholic acid, with a complete response of 41%, a partial response of 51% and an absence of response of only 6 (7%). There was no difference regarding liver response to treatment among patients with pure PBC and patients with overlapping autoimmune hepatitis, Reynolds syndrome, Raynaud phenomenon, Sjögren syndrome nor autoimmune thyroiditis. Only 3% of patients with complete response and 12% of