extension of the knees was impossible. The patella on both knees was at a higher position and a gap was palpated below both the patellae. The radiograph showed bilateral patella alta. Ultrasound showed complete rupture of both patellar tendons. Treatment was by surgical sutures tendon completed by a lacing for 6 weeks retained locked by a removable knee splint for early rehabilitation. The functional outcome after 1 year was very satisfying.

Discussion.– A traumatic forms of rupture of the patellar tendon are very rare and occur on pre-existing lesions (systemic diseases, endocrine disease and chronic renal failure). The diagnosis is essentially clinical helped in case of doubt by ultrasound. Surgical treatment should be with the objective of achieving a solid repair for rapid rehabilitation. Early postoperative rehabilitation has a capital interest and determines the functional prognosis.

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P101-e

Spinal surgery complicated by cauda equina syndrome: A series of 17 recent observations
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Keywords: Cauda Equina; Etiology; Rehabilitation; Dural tear; Spinal extradural hematoma

Objective.– Postoperative neurological complications have been reported in 0–2% [1]. We aim to clarify the context, diagnostic and therapeutic elements to post-surgery cauda equina syndrome.

Methods.– Cauda equina syndrome postoperative identified in CHU Bordeaux, between 1 January 2011 and 30 November 2013.

Results.– Seventeen patients were identified, 61 ±13 years, 5 men. Spinal pathologies motivating surgery: symptomatic lumbar spinal stenosis (9 cases), degenerative scoliosis (5 cases), sciatia hyperalgic on herniated disc (3 cases). An intraoperative dural tear was noted in 12 patients, with 2 rootlets lesions. In secondary neurological deficit, presence of spinal extradural hematoma (8) or material malposition (1), requiring reoperation.

Discussion.– Our data are comparable to those of the literature [2]. Any occurrence of postoperative neurological signs should trigger medical intervention ± imaging exploration.

References

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P102-e

Severe exercise-induced damage in quadriceps muscle
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Keywords: Exercise; Muscle damage; Creatine kinase; Elevated liver enzymes

Introduction.– Exercise-induced muscle damage commonly occurs following unaccustomed physical activity that particularly involves eccentric contractions of greater than normal duration and intensity. We present a case of exercise-induced muscle damage in quadriceps on both side leading to a substantial elevation in liver and muscle enzymes.

Observations.– A 33-year-old male patients presented with anterior thigh pain on both side. His complaints began following a bout of squatting exercise compromising 70 squats 3 days ago on a first day of fitness center he had newly registered. His urine turned red the next day. There was a substantial elevation in muscle (creatine kinase: 54,760 U/L) and liver enzymes (alanine aminotransferase: 344 U/L, aspartate aminotransferase: 1164 U/L) in the blood test. Hematuria and proteinuria was seen in the urine test. T2 weighted MRI of the upper leg showed diffuse increase in signal intensity (indicating oedema) in bilateral quadriceps muscles. The findings were consistent with exercise-induced quadriceps muscles damage. The patient was hospitalized and IV fluids therapy was administered. Abnormality in laboratory tests improved within a week.

Discussion.– Exercise-induced muscle damage may result in important metabolic consequences. Blood tests and MRI of involved muscles can be used for diagnosis.

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P103-e

The effect of acupuncture during post-acute phase of rehabilitation after total knee arthroplasty
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Keywords: Traditional Chinese treatment; Rehabilitation total knee arthroplasty

Introduction.– The purpose of this study was to determine whether traditional Chinese treatment, acupuncture, is effective in reducing pain and swelling and improving range of motion (ROM) during the post-acute phase of rehabilitation after total knee arthroplasty (TKA).

Method.– Following TKA, 40 knees in 40 patients were randomly assigned to either an acupuncture treatment group (GROUP A) or a control group (group C). In group A, the complementary treatment of acupuncture was performed 5 times/week from postoperative day 7 until postoperative day 24. Outcome measures were:

– pain as assessed by a visual analog scale;
– reduction of swelling around the knee as indicated by its circumference at the center of the patella;
– ROM of the affected knee.

Result.– Group A patients had significantly reduced pain and swelling and earlier recovery of ROM than did those in group C.

Conclusion.– Acupuncture provides effective treatment during the post-acute phase of rehabilitation after TKA with respect to pain relief, reduction of swelling around the knee, and early recovery of ROM.

Discussion.– Significant differences between the two groups in the time to achieve preoperative ROM. This is probably because pain and swelling improved in patients in Group A than in those in group C.

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P104-e

Vastus medialis isolated strengthening as a treatment option in persons with patellofemoral pain
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Keywords: Patellofemoral pain syndrome; Vastus medialis; Patellar tilt angle

Introduction.– Patellofemoral pain syndrome (PPS) is a major cause of anterior knee pain. Patellar malalignment due to muscle imbalance can result to PPS.