

## Postgraduate Forum

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### BOOK AND ARTICLE NEWS

#### *Book News*

1. *Interventional Spine Procedures, An Issue of Physical Medicine and Rehabilitation Clinics of North America*, by Carlos E. Rivera: Elsevier
2. *Physical Medicine and Rehabilitation Pocketpedia 3rd edn*, by Matthew, DO Shatzer, Howard, MD Choi. Demos Medical; 3rd edn
3. *Physical Medicine and Rehabilitation Oral Board Review: Interactive Case Discussions 1st edn*, by R. Samuel, MD Mayer. Demos Medical; 1st edn
4. *Atlas of Orthoses and Assistive Devices E-Book 5th Edition*, by Joseph Webster & Douglas Murphy. Elsevier; 5th edn
5. *Atlas of Image-Guided Spinal Procedures, 2nd Edition*, by Michael Bruce Furman, Leland Berkwits, Isaac Cohen, Brad Goodman. Elsevier; 2nd edn.

#### *Article News*

1. Hemiparetic Stroke Rehabilitation Using Avatar and Electrical Stimulation Based on Non-invasive Brain Computer Interface. Woosang Cho, Alexander Heilinger, Ren Xu, Manuela Zehetner, Stefan Schobesberger, Nensi Murovec, Rupert Ortner and Christoph Guger. *Int J Phys Med Rehabil* 2017, Volume 5, Issue 4 : 411
2. Effects of Transcranial Direct Current Stimulation With Sensory Modulation on Stroke Motor Rehabilitation: A Randomized Controlled Trial. Chia-Lin Koh, Jau-Hong Lin, Jiann-Shing Jeng, Sheau-Ling Huang, Ching-Lin Hsieh. *The Archives of Physical Medicine and Rehabilitation* December 2017 Volume 98, Issue 12, p2477-2484
3. Clinical and Functional Characteristics of People With Chronic and Recent-Onset Plantar Heel Pain. Allegra Barnes, Justin Sullivan, Evangelos Pappas, Roger Adams, Joshua Burns. *PM&R Journal*, November 2017 Volume 9, Issue 11, p1128-1134.
4. Speed and temporal-distance adaptations during non-motorized treadmill walking in stroke and non-disabled individuals. Jia-Chi WANG, Wen-Hsu SUNG, Ya-Ling CHANG, Szu-Hsien WU, Tien-Yow CHUANG. *European Journal of Physical and Rehabilitation Medicine* 2017 December;53(6):863-9
5. Effects of Progressive Resistance Training on Cardiovascular Autonomic Regulation in Patients With Parkinson Disease: A Randomized Controlled Trial. Hécio Kanegusuku, Carla Silva-Batista, Tiago Peçanha, Alice Nieuwboer, Natan D. Silva Jr., Luiz A. Costa, Marco T. de Mello, Maria E. Piemonte, Carlos Ugrinowitsch, Cláudia L. Forjaz. *The Archives of Physical Medicine and Rehabilitation* November 2017 Volume 98, Issue 11, p2134 - 2141

## REHAB QUIZ

1. A unilateral transradial prosthetic patient complains that the axilla loop of his harness is uncomfortable. The most common reason for this complaint is that the cross point is
  - a. Too close to the amputated side.
  - b. Too close to the sound side.
  - c. Superior to C7.
  - d. Inferior to C7.
2. When performing femoral block, the LA must be deposited only
  - a. Underneath the fascia lata
  - b. Underneath the iliac fascia
  - c. Lateral to the femoral artery
  - d. Between the psoas muscle and fascia lata
3. For myoelectric prosthesis the minimum amount EMG Voltage required is?
  - a. 15 micro volt
  - b. 25 micro volt
  - c. 10 micro volt
  - d. 25 micro volt
4. What is the pain wind-up phenomenon?
  - a. Increased pain intensity by repeated stimulation
  - b. Recruitment of silent nociceptors after tissue injury causing increased pain intensity
  - c. Increased muscle tone caused by severe pain
  - d. Central sensitization caused by repeated stimulation of nociceptive C fibers
5. Indications for lumbar epidural steroid injections include all of the following EXCEPT:
  - a. Radicular pain with corresponding sensory change
  - b. Radiculopathy due to herniated disc with failed conservative treatment
  - c. Acute herpes zoster in the lumbar dermatomes
  - d. Postlaminectomy (failed back) syndrome without radiculopathy
6. Blood and pus under graft are:
  - a. A sign that the graft is taking and that healing is occurring under the graft
  - b. A barrier to diffusion of nutrients before new capillaries have been formed, leading to failure to take of the graft
  - c. An incidental finding when some grafts that fail to take are re-examined
  - d. An indication for immediate and more radical surgical intervention
7. A patient is positioned prone on the fluoroscopic table, the T1-T4 spinous processes are identified on the ipsilateral side, and a skin weal is raised 4-5 cm lateral to the spinous process. A spinal needle is directed to the lamina and "walked" laterally until there is loss of resistance. These procedures are consistent with which type of block?
  - a. Stellate ganglion
  - b. Thoracic sympathetic
  - c. Interpleural
8. Thoracic epidural which test best assesses the magnitude of functional impairment in a pulmonary disease?
  - a. Pulmonary function test (PFT)
  - b. Arterial blood gas measurement (ABG)
  - c. Chest radiography
  - d. Ventilation perfusion (V/Q) lung scan
9. A 60-year-old diabetic has had a below knee amputation for an ischaemic leg. He has neuropathic pain being managed with oxycodone 40 mg bd and paracetamol 1 g qid. He is also on omeprazole 20 mg daily for reflux. You decide to commence gabapentin. Before deciding on a dosage regimen and commencing therapy it is most important that you
  - a. Cease his omeprazole
  - b. Check his hepatic transaminase level
  - c. Check his renal function
  - d. Check his QT interval on a resting EGG
10. Potential complications of stellate ganglion block all except
  - a. Pneumothorax
  - b. Lesion of recurrent laryngeal nerve
  - c. Neuritis
  - d. Horner's syndrome

### Answers of Sept 2017

1. d 2. c 3. c 4. b 5. c 6. c 7. a 8. a 9. d 10. b

## REHAB CHALLENGE

A 50 years old female patient presented with left knee pain and swelling (Fig. 1) for last 6 months. She was initially treated as osteoarthritis knee (Fig. 2) which was not resolved by conservative management. That is why joint fluid aspiration was done which was hemorrhagic in nature. Thereafter the patient was referred to PMR department of our hospital for management of hemarthrosis. On further evaluation patient denies any history of hematemesis, hematochezia or gum bleeding. But she received couple unit of blood transfusion due to menometrorrhagia decades back .On further examination we did not get any sign or stigmata of bleeding or clotting disorder. All the bedding and clotting laboratory markers came out normal .Considering the previous non-conclusive report of synovial fluid further attempt of synovial fluid aspiration was done which was serous in nature. Due to this ambiguity we planned for a MRI of left knee joint (Fig. 3), which showed several hemorrhagic pockets on synovium. MRI picture also suggestive of inflammatory or infective changes. Meanwhile a LN was found to be enlarged on her left groin which was biopsied. We also did vasculitic screening which was also normal. Finally, we planned for synovial biopsy keeping in mind the differentials of MRI image. None of the histopathology reports were suggestive of any Koch's infection or neoplasia. But the patient is still suffering from knee pain.

Please opine further about management options for this patient.



Fig. 1 Knee pain and swelling

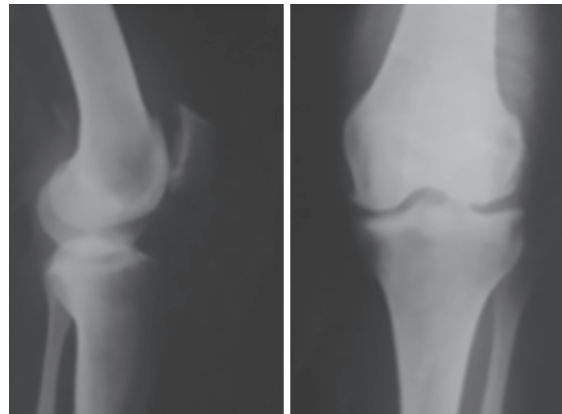


Fig. 2 Osteoarthritis knee

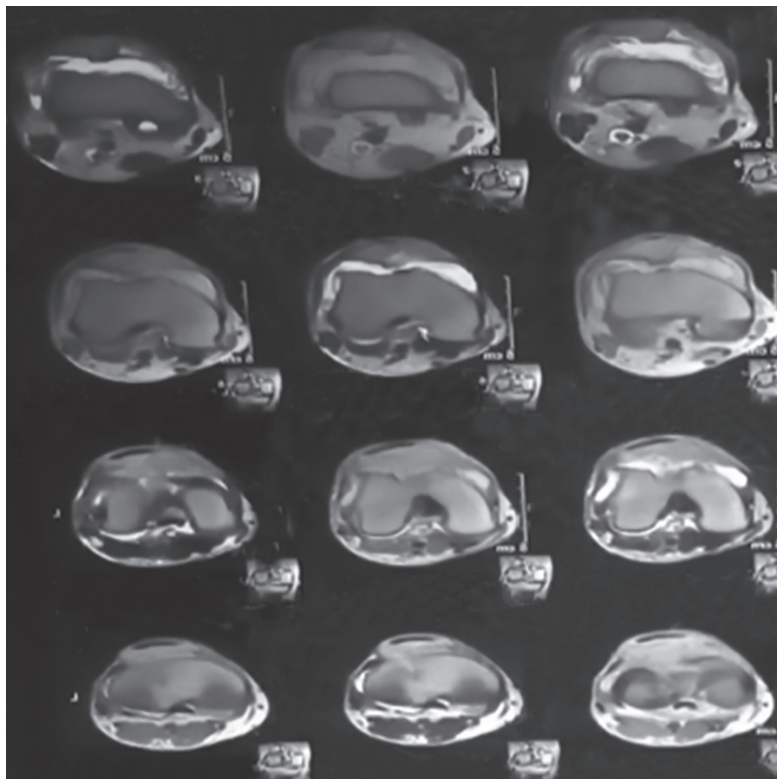


Fig. 3 MRI of left knee