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SICOT Newsletter

The Doctor-Patient Relationship

In this issue

The Doctor-Patient Relationship: A Personal View

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"A man should never be ashamed to own that he has been in the wrong, which is but saying in other words that he is wiser today than he was yesterday." Alexander Pope, 1688-1744

Licencing bodies around the world clearly define the boundaries of the profession's emotional and physical engagement with patients. Essentially we should never exploit our position of authority, knowledge or respect, to obtain any type of advantage over our patients. It is a simple moral code with clear limits and should present no difficulties. A less well taught subject is how to address adversity which is the subject of this essay.

All health-economies are faced with serious problems managing the escalating financial costs of providing care against the background of technological advances which extend the treatments we can offer. This is compounded by increasing life expectancy and demand (driven by expectation), and perhaps by an element of self-neglect through a rising incidence of obesity. The consequences of trying to balance the books has been to change the style of the surgeon's work, with admission of elective patients on the day of surgery and locating the operative venue in some cases away from one's usual place of work, in an elective centre. In addition, many previously defined medical duties have been transferred to trained allied professionals. In short, we now spend less time with our patients than would have occurred 25 years ago, when patients were admitted the day before surgery and remained in hospital for a lengthy period. The old pattern of working enabled a series of ward rounds to occur with the consultant leading a team of junior colleagues. During these ward rounds the opportunity to observe the "bedside manner" in action presented itself. The lessons learnt from hours of, what with hindsight were causal, observation do not yet feature on the postgraduate specialist syllabus.

It will be unusual for a surgeon to complete a career without some adverse outcomes. It is a simple fact that surgery is associated with risk. We must all recognise the limitations of our skills but there will always be unusual circumstances where we meet some new permutation of a problem and have to bring strands of our knowledge and previous experience together to manage that situation. However, we must know when to call for help and a lack of insight in this area is likely to lead to accusations of negligence. With careful planning, risks can be minimised but not entirely eliminated. We therefore need to ensure that our patients know about the hazards they face, but in the pressured environment of an overbooked outpatient clinic this might not be done as well as we might wish. A recent legal ruling in the United Kingdom has increased the responsibility to ensure any explanation is provided in a manner which suits the individual patient's comprehension [1]. All this takes time but is vital. Obtaining consent to operate is a process not an event and needs to be initiated when surgery is first recommended. At each stage thereafter the consenting pathway should continue using supplementary materials such as information leaflets, pre-operative classes, drawing pictures and diagrams, and digital media. Ultimately you, the surgeon, will have to be satisfied the patient is providing informed consent. Involving family members, if it is acceptable to the patient, can be helpful, but one should be wary of coercion by the family. It is therefore a good policy to obtain the consent yourself for everyone upon whom you are operating or at least personally confirm that the patient is satisfied with their explanation of the likely outcome and potential risks.

Managing the situation when something does go wrong is one of the hardest aspects of the surgeon's job. This is a real test of character. If you do not feel slightly upset by something going wrong, such as an iatrogenic nerve injury or periprosthetic fracture, your callous indifference marks you out as having psychopathic tendencies which make you unsuitable for a surgical career. That is not to say you should collapse under the emotional pressure; you have to be resilient. The immediate surgical situation must be controlled but post-operatively you must remain with the patient until they are sufficiently alert that you can personally explain, in a way they can understand and without abbreviation, what has happened and answer any questions. You may need to speak to the family at this point. It is said that sorry is the hardest word. It is simply

not true. A heartfelt apology delivered without delay will make you feel improved even if not completely better. The benefit of this openness is that your patient will more likely trust you. They will recognise your sincerity and see you as someone who is honest. You will probably have disturbed sleep for some days but you will recover unharmed and wiser. The sheepish individual who avoids eye-contact and gives a limited mumbled explanation and deflects blame onto others will be spotted immediately. The long-term outcome for the latter individual is likely to be protracted litigation.

The day following the adverse event you should visit your patient again with some members of your team, but not so many that the experience intimates the patient. Repeat your apology and answer questions which may arise. Bad news is hard to assimilate in full, so be prepared to repeat any explanation several times. You should offer them the chance to have their care transferred to a colleague if they prefer. The patient may be angry which you should understand if you consider the situation from the patient's perspective. You should respond to their anger by remaining calm and not shout. You should also ask them if they have had any ideas on how the problem can be put right. They are unlikely to have thought that far ahead but you should have done so. You can then offer your views if they are interested. You should do so using appropriate body language. Sitting in a chair set slightly lower than the patient's bed will make the patient feel less vulnerable. Nothing should be rushed even if you have a packed schedule to manage. Involving the patient in establishing the solution empowers the patient and gives the message that you are concerned they still achieve the best possible result. Thereafter you can remedy the situation and should remain heavily involved in their aftercare in outpatients.

My description is not about avoiding litigation that is just a possible bonus. The purpose of displaying some humility is to maintain a healthy environment where you can perform at your best offering continuity of care to the advantage of your patient whose needs are your duty to address. Managed well, you and your patient should continue to have a convivial relationship and any financial recompense is likely to be limited to the true value and not some inflated claim driven by the legal process. Furthermore, each time something does not go to plan you should analyse the situation so you learn from it, become wiser and share your new insight.

Conclusion

The most straightforward way to cope is to place yourself in the patient's predicament and consider how you might feel and what you would expect for yourself. You should appreciate how difficult it is to understand something outside your own experience. When things go wrong you must face the problem and share it emotionally by offering a full explanation with an apology to the patient and involving them in making the future plans. Above all, know your patient well, which can only be achieved properly by talking to them and not treating them as an object with certain radiological changes. If you do not lose your patience you will not lose your patients. No surgeon is too old to learn.

Reference:
Montgomery (Appellant) vs. Lancashire Health Board (Respondent) (Scotland). Supreme Court Judgement, 11th March 2015, London

A Brief History of Orthopaedic Surgery in Italy

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It is almost an impossible task to try and summarise in a brief article all the history of Trauma and Orthopaedics in Italy. So we will focus on the pioneers who contributed effectively to the improvement of this discipline in Italy and worldwide.

Prof Alessandro Codivilla (1861-1912) is considered the father of orthopaedic surgery in Italy. He was a former general surgeon who at the age of 38 years resigned from general surgery practice and elected to exclusively practise trauma and orthopaedic surgery becoming the director of the Rizzoli Institute in Bologna [1]. His main contribution to the world of orthopaedics was in the field of tendon transplantation where his innovations served patients who suffered complications of poliomyelitis. He also contributed to the treatment of a number of conditions including hip dislocations, club feet, scoliosis and cerebral palsy and had an interest in limb lengthening and reconstruction surgery as well [2]. In 1903, he was the first to apply skeletal traction by means of a pin through the os calcis as a method of deformity correction for malunited fractures [3]. Throughout his lifetime, he published a total of 124 articles, 25 of which were in foreign languages [2]. He was a member of several national societies, and the founder and first president of the Italian Society of Trauma and Orthopaedics (SIOT). During his leadership, the Rizzoli Institute became world famous and its fame, as the Mecca of orthopaedic surgery, continued to spread in the following years. After his death in 1912, the institute continued to flourish and reached its highest pinnacle under the supervision of Prof Vittorio Putti (1880-1940) who was also a pioneer in the treatment of congenital hip dislocations introducing a device which was named after him and used for the treatment of the first stages of the disease [4]. Prof Putti's research focused on the treatment of open fractures, nerve and tendon injuries, Madelung deformities and correction of limb and spine deformities [5]. He also introduced the concept of cineplastic amputation utilising the muscles of a stump to actuate artificial limbs during the First World War [5, 6]. Due to his eminence in the orthopaedic field, he was invited to lecture around the world and was the guest speaker at the American College of Surgeons meetings held in Boston in 1934 and Chicago in 1937. Prof Putti was also one of the formal founders of the "*Société Internationale de Chirurgie Orthopédique et de Traumatologie*" (SICOT) and the third SICOT World Congress was held in Bologna in 1936 [7]. He published extensively on bone tumours and his research work was particularly important in understanding and treating osteosarcomas. In 1914, Prof Putti was the first surgeon in the world to perform pelvic resection followed by reconstruction with a hip transposition technique for a sarcoma affecting the pelvis and proximal femur in a 17-year-old male patient [8]. However, later on thanks to the efforts of Prof Italo Federico Goidanich (1922-1966), who established the Bone Tumour Centre in 1955, and Prof Mario Campanacci (1932-1999) the Rizzoli Institute became a world renowned centre for the diagnosis and treatment of musculoskeletal tumours.

Prof A. Codivilla (1861-1912): Father of Italian orthopaedic surgery

Prof M. Campanacci (1932-1999): A pioneer of musculoskeletal oncology surgery

Prof Campanacci was one of the three pioneers in the field of musculoskeletal oncology, together with Dr Henry J. Mankin and Dr William F. Enneking (1926-2014). He was one of the first surgeons in the world to perform reconstructive surgery instead of amputations in sarcoma patients. Prof Campanacci became so famous abroad, and particularly in the United States, that at those times it was said: "Campanacci is the only Italian word that any orthopaedic surgeon in the world should know". After

him, his pupils Prof Mario Mercuri, Dr Stefano Boriani, Prof Rodolfo Capanna, Dr Roberto Biagini and Prof Pietro Ruggieri continued his work in Bologna, Florence, Rome and Padua. The department of orthopaedic surgery in Padua was first established by Prof Calogero Casuccio (1909-2003), who was a pupil of Prof Putti and a former president of SICOT.

Another prestigious institute in Italy was the one founded by Riccardo Galeazzi (1866-1952) in Milan. Under his guidance the "*Istituto dei Rachitici*" became an important referral centre for trauma and orthopaedics in Italy. The majority of Galeazzi's work focused on scoliosis, skeletal tuberculosis, acute arthritis in the infants and juvenile osteochondrosis [9]. His research work was on bone grafts, epiphyseal cartilage transplants and treatment of congenital dislocation of the hip joint (more than 12,000 treated cases were reported) [9]. He also described the Galeazzi test for assessment of hip joint dislocations in developmental dysplasia of the hip. Two other Milanese surgeons, Dr Silvio Rolando and Dr Giovanni Battista Monteggia were also famous and had a fracture named after each of them.

Prof R. Galeazzi (1866-1952): Described radius fractures associated with distal radioulnar joint dislocations named after him

Prof G.B. Monteggia (1762-1815): Described proximal ulna fractures associated with radial head dislocations named after him

The Institute of Trauma and Orthopaedics at the University of Rome was founded by Prof Riccardo Dalla Vedova (1871-1942) and then led by Prof Carlo Marino-Zuco (1893-1965). Prof Dalla Vedova worked on the treatment of skeletal tuberculosis and had a special interest in rehabilitation following trauma surgery. On the other hand, Prof Marino-Zuco described important techniques for treatment of fractures especially that related to the spine.

Prof Oscar Scaglietti (1906-1993), another famous pupil of Prof Putti, was appointed director of the department of orthopaedic surgery in Florence at a very young age. He was an exceptionally skilled surgeon, a pioneer of disc herniation surgery and one of the fathers of hand surgery in Italy. One of his pupils, Piergiorgio Marchetti joined Prof Campanacci as director of the department of orthopaedic surgery at the Rizzoli Institute and this was followed by Prof Maurilio Marcacci, who is internationally recognised for surgeries performed around the knee joint.

Several other pioneers who deserve recognition for their devotion and commitment to orthopaedics include: Prof Francesco Delitala (1883-1983) for his research work on herniated disc pathology, Prof Francesco Pipino (1931-2014) for his remarkable achievements in the development of total hip arthroplasty surgery, and Prof Giovanni De Bastiani for his research on limb lengthening using axial external fixators.

In the meantime, many other prestigious surgeons from Italy continue to contribute to the development of modern orthopaedics nationally and internationally.

References can be found at:
www.sicot.org/enewsletter-80-history-orthopaedics

Effect of Spinal Deformity on Pelvic Orientation from Standing to Sitting Position

Chitranjan S. Ranawat, Amar S. Ranawat, Joseph D. Lipman, Peter B. White, Morteza Meftah
DOI: http://dx.doi.org/10.1016/j.arth.2015.11.035

Comment by Alexander S. McLawhorn & Jeffrey Lange
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Abstract

Background: The effect of fixed spinal deformities on a functional pelvis from standing to sitting is not fully understood. We aimed to assess the change in preoperative sagittal pelvic tilt angle (SPTA) from standing to sitting in patients undergoing total hip arthroplasty, comparing flexible and fixed spinal deformities.
Methods: Between July 2011 and October 2011, 68 consecutive unilateral total hip arthroplasties were implanted in 68 patients with a mean age of 71 ± 6 years. Fixed spinal deformity was defined as <10° of the change in SPTA from standing to sitting. Preoperative radiographic evaluation included standing (weight-bearing) antero-posterior and lateral pelvic and lumbosacral radiographs and a sitting lateral pelvic radiograph.
Results: The mean standing and sitting SPTA was 3.7° of anterior tilt and 17.7° of posterior tilt, respectively (change of 21.4 ± 12.5°). Seventy-five percent had flexible pelvises, all of which had a posterior tilt from standing to sitting. One patient in the fixed pelvis (1.4%) had a loss of posterior tilt from standing to sitting. The mean change of SPTA from standing to sitting in the fixed and flexible pelvis groups was 5.9 ± 3.5° to 26.7 ± 9.6° of posterior tilt, which was statistically significant (P < .05).
Conclusion: There was a significant change in sagittal pelvic tilt from standing to sitting, especially in patients with a flexible spine, in which the functional anteversion increases with sitting. The patients with a fixed pelvis had significantly less SPTA in standing (less anteversion) with less posterior sagittal tilt in sitting, which should be incorporated in cup positioning.

Comment

For total hip arthroplasty (THA), Lewinnek's "safe zone" (40° ± 10° of inclination; 15° ± 10° of anteversion) is often targeted for acetabular component orientation with the goal of minimising the risk of postoperative dislocation [1]. However, two recent papers have questioned whether or not static acetabular component position alone predicts the risk for postoperative instability [2,3]. For any individual patient, it has been shown that sagittal pelvic tilt changes depending on whether the patient is supine, standing or sitting [4]. It follows that the position of the cup is dependent on the 3-dimensional orientation of a patient's pelvis during daily activities, and prior studies have demonstrated how acetabular anteversion and inclination change with alterations in pelvic position [4,5]. Lazennac et al. [6] first described the influence of spinal motion and alignment on pelvic position and acetabular component orientation. However, few studies have examined these relationships in patient cohorts with and without spinal deformities [7,8].

Ranawat et al. [9] explored the effects of fixed versus flexible spinopelvic relationships on the functional position of the acetabular component in a cohort of primary THA patients using frontal and lateral radiographs acquired in standing and sitting positions (Figure 1A-B). Compared to those patients with relatively flexible spinopelvic relationships, they defined those with more rigid spinopelvic motion as having less than 10 degrees of change in sagittal pelvic tilt from standing to sitting position. Of the 68 patients included for the study, over 70% had evidence of spinal pathology and 25% met the authors' definition of having a stiff spine, or "fixed pelvis". Flexible patients exhibited slight anterior sagittal pelvic tilt in standing to more substantial posterior tilt in sitting, the effect of which increased functional anteversion of the acetabular component by 0.75 degrees per degree of posterior tilt as they sat. Presumably, increased functional anteversion is protective against posterior dislocation during sitting. For patients with fixed spines, there was significantly less functional acetabular anteversion in the sitting position (i.e. less protection against posterior THA instability). The authors conclude that a dynamic assessment of spinopelvic motion should be part of the preoperative planning for THA. For THA patients with flexible spines, they recommend reproducing native acetabular anteversion, and they speculate that patients with flexible spines do not necessarily require pelvic tilt-adjusted anteversion, as prior publications have suggested [5]. However, they recommend increasing acetabular component anteversion in patients without normal posterior pelvic tilt in sitting.

Ranawat et al. [9] elaborate our understanding of the spine-pelvis-hip relationship, and it supports more individualised acetabular orientation targets, considering these dynamic spinopelvic relationships. The next steps are: (1) determining the process to preoperatively plan THA cup positioning, accounting for spinopelvic factors; and (2) identifying techniques/technologies that can reliably execute the plan with a high degree of accuracy. Additionally, longer-term studies are needed to assess changes in functional cup positioning over time. For example, as this study highlighted, there is a high prevalence of concomitant spinal pathology in our hip arthritis patients. As the spine ages, it is reasonable to expect a reduction in spinopelvic motion, and Buckland et al. [10] recently reported that spinal surgery can alter functional acetabular component position in patients with pre-existing THAs.

It should be noted that many THA component orientation analyses ignore half of the range of motion equation: femoral component orientation. Because it is difficult to assess without axial imaging, the femur is often "the forgotten bone". Yet, optimising femoral component version is critical to maximising range of motion prior to impingement and to minimising bearing surface wear. Furthermore, compared to patients with normal spinopelvic motion, patients with fixed spinopelvic relationships require greater femoral motion relative to the acetabulum to achieve sitting position [8]. Arguably, femoral component position is as important as cup position during functional positions, and the concept of combined anteversion (acetabular anteversion + femoral anteversion) is a biomechanically sound principle to follow in order to avoid impingement and abnormal bearing surface wear [11].

References can be found at:
www.sicot.org/enewsletter-80-update-orthopaedics

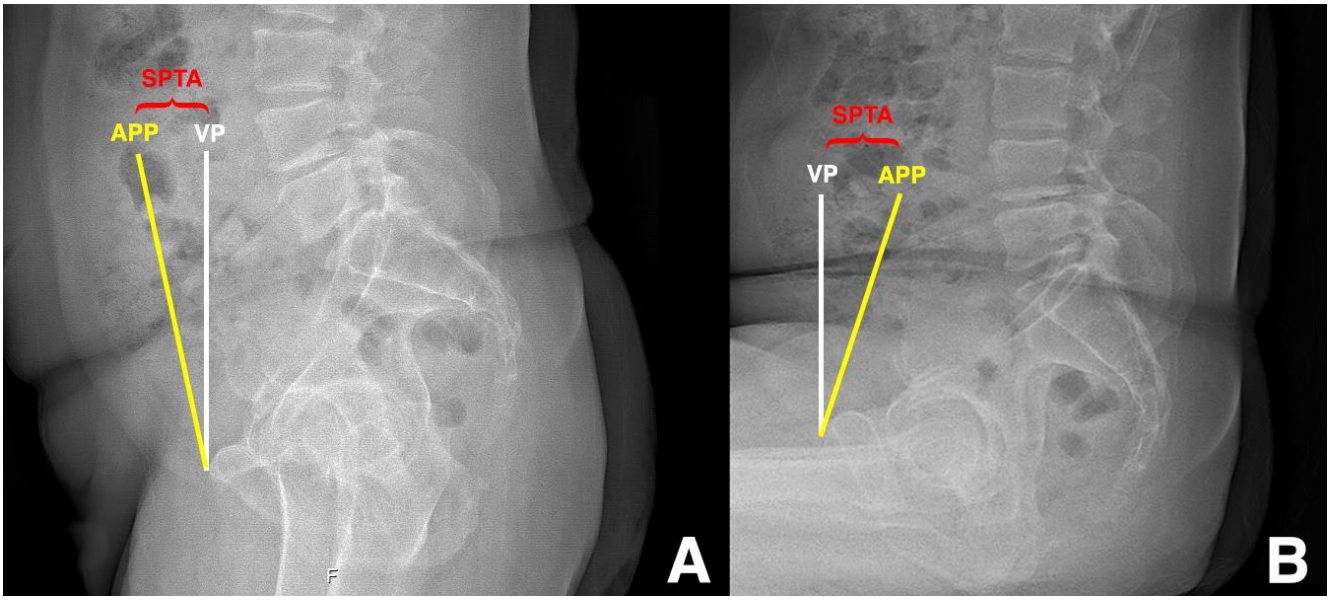

Figure 1: Preoperative sagittal pelvic tilt angle (SPTA) measurements standing (A) and sitting (B) lateral pelvic radiographs. SPTA, sagittal pelvic tilt angle between the anterior pelvic plane (APP, yellow line connecting the antero-superior iliac spines to the pubis) and the vertical plane (VP, white line). There is anterior sagittal pelvic tilt relative to the VP in standing, and there is posterior sagittal pelvic tilt in sitting.

Einhard H.W. Erken
1937-2016

Emeritus Professor Einhard H.W. Erken, a doyen of orthopaedic surgery, teacher, musician and athlete passed away on 19 September 2016.

Einhard Erken was born in Austria. He grew up in northern Germany. He studied for his undergraduate medical degree at Ludwig Maximilian University of Munich. During this time, he married Dagmar (Dagi), also a medical doctor. He did his internship in Germany. The family then moved to South Africa and he worked at Baragwanath Hospital in the Department of Orthopaedic Surgery. They then moved to Bulawayo in Rhodesia where he worked at the Mplia Hospital. He returned to South Africa, joining the Department of Orthopaedic Surgery at the University of the Witwatersrand, where he specialised in Orthopaedic Surgery under Prof Louis Solomon.

Einhard then furthered his professional development by doing a Fellowship in Paediatric Orthopaedic Surgery at the Royal Children's Hospital in Melbourne, Australia, with Peter Williams and Malcolm Menelaus. On his return to South Africa he entered private practice but returned to full-time academic practice within a couple of years. He built up the Department of Orthopaedic Surgery and was Head of the Department from 1988 to 2000. During his tenure he was renowned as a teacher and researcher. His Wednesday morning ward rounds were not to be missed. His Saturday academic meetings filled the Marie Curie Lecture Theatre, and provided a forum for interaction between the public and the private sector. His attention to detail and his enquiring mind stimulated a whole generation of orthopaedic surgeons to conduct research and present their findings in a host of different forums. After his retirement Professor Erken was invited back as Emeritus Professor of Orthopaedic Surgery to further postgraduate orthopaedic education and was posted at Chris Hani Baragwanath Academic Hospital.

He maintained a life-long passion for paediatric orthopaedic surgery. During his tenure as Head of Department he was also Principle Specialist in charge of the paediatric orthopaedic service. He was instrumental in developing this service across all the academic hospitals. He was also intimately involved in providing medical care for the children at the Hope Home. Here he followed in the footsteps of Carl Moller and Jimmy Craig, both leaders in the field of paediatric orthopaedic surgery. All visitors to the Department were taken there to experience the institution that the Hope Home is and was, but also to enjoy the view over Johannesburg, especially when the Jacarandas were flowering. He particularly enjoyed hearing the lion roars from the nearby Johannesburg Zoo when he was showing guests around. He was a founder of the South African Paediatric Orthopaedic Society (SAPOS) in 1987, and was President of this Society until 2001.

He was President of the College of Orthopaedic Surgeons in the College of Medicine of South Africa from 1992 to 2002. He fought to unify the examination for MMed(Orth) and FCSOrth (SA) which he achieved. He was also instrumental in introducing the Higher Diploma of Orthopaedic Surgery. He also introduced the National Registrar In-Training Examinations to help prepare candidates. He was awarded the Medal for Education by the South African Orthopaedic Association (SAOA) in September 2011.

Professor Erken played a vital role in various professional bodies. He was the Chairman of the Southern Transvaal and later the Southern Gauteng Branch of the SAOA for many years. He was a member of the SAOA Executive Committee from 1992 to 2001. He was the Chairman of innumerable organising committees for the Annual Congress of the SAOA as well as other meetings. He was also Co-founder and Vice-President of the South African German Orthopaedic Foundation (SAGOF) which was established in 2001. Internationally he was held in high esteem and was the SICOT National Representative of South Africa for many years. To this end he enthusiastically promoted SICOT in South Africa and throughout the continent.

He was also Editor-in-Chief of the South African Journal of Bone & Joint Surgery from 1991 to 2002, which was accredited by the Department of National Education (DNE) in 1992, and was also the Chairman of the Advisory Editorial Board of the Journal of Bone & Joint Surgery, African Edition from 2006.

He is survived by his wife Dagmar, children Benno, Astrid, Felix and Kristen, as well as seven grandchildren and a great-grandchild.

Written by Dick van der Jagt

Foot & Ankle

Prepared by Mohamed Sukeik
SICOT Associate Member & SICOT Newsletter Associate Editor – London, United Kingdom

Questions

1. Which of the following structures locks the transverse tarsal joints during toe-off phase of gait?

   a. Anterior tibialis tendon
   b. Posterior tibialis tendon
   c. Extensor hallucis longus
   d. Peroneus longus
   e. Peroneus brevis

2. The Lisfranc ligament runs from:

   a. Medial cuneiform to base of the first metatarsal
   b. Medial cuneiform to dorsum of the second metatarsal
   c. Medial cuneiform to base of the second metatarsal
   d. Middle cuneiform to dorsum of the second metatarsal
   e. Middle cuneiform to base of the second metatarsal

3. Which of the following is more commonly involved in stress fractures?

   a. First metatarsal
   b. Second metatarsal
   c. Third metatarsal
   d. Fourth metatarsal
   e. Fifth metatarsal

4. During the Heel-strike phase of gait which of the following is true?

   a. The anterior tibialis contracts concentrically
   b. The anterior tibialis contracts eccentrically
   c. Gastrocnemius-soleus complex contracts concentrically
   d. Gastrocnemius-soleus complex contracts eccentrically
   e. Hindfoot is locked/inverted for energy absorption

5. During the Foot-flat phase of gait which of the following is true?

   a. The anterior tibialis contracts concentrically
   b. The anterior tibialis contracts eccentrically
   c. Gastrocnemius-soleus complex contracts concentrically
   d. Gastrocnemius-soleus complex contracts eccentrically
   e. Hindfoot is locked/inverted for ground accommodation

6. During the Toe-off phase of gait which of the following is true?

   a. The anterior tibialis contracts concentrically
   b. The anterior tibialis contracts eccentrically
   c. Gastrocnemius-soleus complex contracts concentrically
   d. Gastrocnemius-soleus complex contracts eccentrically
   e. Hindfoot is unlocked/everted for ground accommodation

7. Common deformities seen in a rheumatoid foot include all of the following except?

   a. Hammer toes
   b. Claw toes
   c. Hallux varus
   d. MTPJ dislocations
   e. Pes planovalgus

8. The position for arthrodesis of the hindfoot is:

   a. 0-5 degrees hindfoot valgus, neutral abduction/adduction and plantigrade
   b. 0-5 degrees hindfoot valgus, 5 degrees abduction and 5 degrees plantar flexion
   c. 0-5 degrees hindfoot varus, neutral abduction/adduction and plantigrade
   d. 0-5 degrees hindfoot varus, 5 degrees abduction and plantigrade
   e. 0-5 degrees hindfoot valgus, 5 degrees adduction and 5 degrees dorsiflexion

9. Baxter neuritis presents with plantar medial heel pain and is caused by compression of which of the following?

    a. Medial plantar nerve
    b. Lateral plantar nerve
    c. Tibial nerve
    d. Sural nerve
    e. Saphenous nerve

10. Grade 3 according to Wagner Meggitt classification of foot ulcerations include?

    a. Superficial ulcer
    b. Ulcer with exposed bone/osteomyelitis or abscess
    c. Deep ulcer
    d. Local gangrene
    e. Whole foot gangrene

11. Which of the following classification systems address osteoarthritis of the first metatarsophalangeal joint?

    a. Hattrup and Johnson
    b. Johnson and Myerson
    c. Berndt and Harty
    d. Hepple
    e. Eichenholtz

12. In diabetic neuropathy, all of the following are true except:

    a. 90% of patients who cannot feel a 5.07 monofilament have lost protective sensation of their feet and are at risk of ulceration
    b. Small intrinsic musculature of the foot are affected resulting in claw toes and ulcers
    c. Minimum absolute toe pressures for healing is 40mmHg
    d. Transcutaneous oxygen pressure of the toes <40mmHg has been found to be predictive of healing
    e. In the coalescence phase, less inflammation, less swelling and less erythema are expected

13. In talar fractures, all of the following are true except:

    a. Constitute less than 1% of all fractures and second among all tarsal fractures
    b. Blood supply is provided by the posterior tibial artery, the dorsalis pedis artery and the perforating peroneal artery
    c. The arteries of the tarsal sinus, tarsal canal and the deltoid are important branches of the main vessels
    d. The artery to the tarsal sinus carries the main supply to the talar body
    e. In type II Hawkin fracture, the only remaining blood supply comes from the deltoid branch of the posterior tibial artery

14. In calcaneal fractures, all of the following are true except:

    a. Extraarticular fractures with significant displacement may endanger posterior skin
    b. Lateral wall blow out causes subfibular impingement
    c. Disruption of the medial soft tissue does not increase the operative complication rate as opposed to lateral soft tissue trauma
    d. Delayed wound healing after operative fixation can occur in 25% of patients undergoing an extensile lateral approach. However, deep infection is much lower at 1-4%
    e. EHL is at risk during placement of screws from lateral to medial at the level of the sustentaculum constant fragment

15. In subtalar dislocations, all of the following are true except:

    a. Lateral dislocations are more common than medial dislocations
    b. In medial dislocations, obstacles to reduction include extensor digitorum brevis, the extensor retinaculum and peroneal tendons

c. In lateral dislocations, obstacles to reduction include posterior tibial tendon and flexor hallucis longus tendon
d. CT scan is recommended to rule out small intra-articular fragments
e. Reduction can be accomplished under sedation or general anaesthesia

16. In hallux valgus, all of the following are true except:

a. The pathophysiology is likely multifactorial
b. Dorsolateral migration of abductor hallucis causes the muscle to pronate the phalanx
c. First metatarsal head moves medially off the sesamoids, increasing the intermetatarsal angle
d. Secondary contractures of the lateral capsule, adductor hallucis, lateral metatarsal-sesamoid ligament and intermetatarsal ligament occurs
e. The metatarsophalangeal joint may or may not remain congruent

17. In Charcot-Marie-Tooth (CMT) disease, all of the following are true except:

a. It is the most common inherited progressive neuropathy affecting 1 in 2,500 people
b. Type I is the most common presentation of CMT
c. Tibialis posterior and peroneus brevis are weak
d. First ray is plantar flexed due to relatively unopposed peroneus longus
e. Intrinsic wasting leads to overpull of extrinsics causing claw-toe deformities

18. In rheumatoid arthritis, all of the following are true except:

a. It is a chronic, symmetric polyarthropathy that most commonly presents in the third and fourth decades
b. More common in females
c. Forefoot is less commonly involved than midfoot or hindfoot
d. Toes sublux or dislocate dorsally, deviate laterally into valgus, and develop hammering
e. Pes planovalgus may be midfoot or hindfoot driven

19. In hallux rigidus, all of the following are true except:

a. Osteoarthritis of the interphalangeal joint affects treatment options
b. Position for fusion is 10-15 degrees of dorsiflexion and slight valgus
c. Silicon arthroplasty is a well-recognised and accepted treatment
d. Cheilectomy is performed for early stages of the disease for dorsal osteophytes formation
e. Patients present with pain, swelling and a positive grind test

20. Regarding pes planus, all of the following are correct except:

a. Most common cause of adult acquired pes planus is tibialis posterior tendon dysfunction
b. The presence of gastrocnemius contracture should be assessed and corrected with a gastrocnemius recession if present
c. A negative lateral talo-first metatarsal angle and talonavicular uncoverage are common radiological findings
d. A cotton osteotomy is used to dorsiflex the first ray
e. FDL or FHL tendon transfers are used for stage II disease

Answers are published at:
www.sicot.org/enewsletter-80-exam-corner

38th SICOT Orthopaedic World Congress

Call for Abstracts

Online abstract submission will open soon at www.sicot.org/cape-town-abstract-submission

Deadline: **15 March 2017**

Registration

Online registration will open soon at www.sicot.org/cape-town-registration

Registration fees in EUR	Early (until 15 July 2017)	Normal (16 July – 31 October 2017)	On-site (28 November – 2 December 2017)
SICOT Active Members	EUR 200	EUR 300	EUR 400
SICOT Associate Members	EUR 100	EUR 180	EUR 250
Non-Members	EUR 400	EUR 500	EUR 600
Non-Member Trainees	EUR 200	EUR 280	EUR 350

For more information about the Congress, please visit www.sicot.org/cape-town

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