According to Integral theory, the pelvic floor anatomy is not simply limited to bone, muscle, fascia and ligaments. On the contrary; it is a complex synergic system. In this presentation, it is aimed to review the elements and their functions of pelvic floor as being a synergic system. Pelvic floor; is separated into 3 zones namely anterior, middle and posterior. There are key structures in each zone and these provide the normal pelvic function.

Anterior zone
1. External urethral ligament
2. Suburethral hammock
3. Pubourethral ligament

Middle zone
4. Arcus tendineous fascia pelvis
5. Pubocervical fascia
6. Critical elasticity zone

Posterior zone
7. Uterosacral ligament
8. Rectovaginal fascia
9. Perineal body

Two analogy is being used to explain the Integral theory:
1. ‘Bridge analogy’ for structure.
2. ‘Trombolin analogy’ for function

The diagnostic algorithm depending on Integral theory guide to surgeon about the anatomical causes of dysfunction. Because the damaged ligaments lead to dysfunction (urinary and faecal incontinence) damaged ligaments and fascia lead to prolapse. Hence, the restoration of anatomy will restore function.

Moreover, major symptoms may exist with minor prolapse (butterfly effect).

Key words: Anatomy of pelvic floor, incontinence, cystocele, rectocele, enterocoele.

The anterior talar facet of the calcaneus may be missing and when present it may or may not be fused with the middle talar facet, resulting in 3 major types of configurations: the three facet configuration (3F) with separate anterior, middle and anterior facets, the fused configuration (FUS) where the anterior and middle facets are fused to form a shoe shape facet and a missing anterior facet configuration (MAF) without anterior facet.

The total articular surface in a FUS configuration is superior to the one in a 3F configuration and is least in the MAF configuration. In a 3F configuration the long axis of the anterior facet forms an angle with the long axis of the middle facet. This two-axis system is supposed to give a better stability to the anterior subtalar joint. In a study under publication Madhavi et al. found significantly more osteoarthritic degeneration in feet with FUS configuration than in 3F feet. Pseudofacets on the lateral edge of the sulcus calcanei also seem three times more frequent in FUS configurations. These observations are in line with the hypothesis of better stability of the 3F configuration.

In feet with a 3F calcaneus a synovial plica is intruding into the TCN joint and a vertical ligament is situated behind it. Like all plicae this one could be crushed and like all ligaments the vertical ligament behind it could be stressed or even ruptured and be a cause of subtalar instability and sinus tarsi syndrome.

Key words: Subtalars joints, talocalcaneonvicular joint, calcaneus, variants, synovial plica.
changes of colour, strength and fragility of organs and tissues. The new embalming technique (adapted from Thiel, 1992) is based on the use of 4-chloro-3-methylenphenol for fixation, and ethyleneglycol for preservation of tissue plasticity, while the concentration of formalin is kept to the strict minimum (0.8%). The procedure results in well preserved organ and tissues concerning colour, consistency, flexibility and plasticity. The articular joints remain freely movable, the peritoneal cavity can be inflated for laparoscopic procedures and the lungs can be ventilated. Up to now this cadaver model was used in our institute for laparoscopic bariatric surgery, colon and thorax surgery, and arthroscopy. Preliminary findings seem to indicate that the corpses also serve as a suitable phantom for assessing thorax radiological equipment. Expert clinicians work as tutors and give instructions before the participants start with hands-on surgery. Industrial companies sponsor the facility by providing surgical instruments and funding. We intend to expose also our undergraduate medical students to demonstrations of surgical approaches on Thiel embalmed corpses, in order to reveal the need for detailed anatomical knowledge in the clinic at an early stage in the medical curriculum.

Key words: Embalming, cadaver workshop, endoscopy, undergraduate anatomy training, postgraduate training.

C-05
Anatomical pathways that make perceptual processing depend upon instructions for action
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In many contemporary studies and textbooks perceptual processing is treated as a pure sensory phenomenon, one that can be understood on the basis of pathways passing information from the sensory periphery to the cerebral cortex, for processing within the cortex and subsequent passage to motor centers or memory stores. However, many physiologists, psychologists and philosophers have recognized perceptual processing as closely dependent upon action (e.g. the sensorimotor contingencies of O’Regan and Noë, 2001), although the anatomical nature of the functional links is generally left unresolved.

A survey of pathways that pass messages through the thalamus to the cerebral cortex (visual, tactile etc.) shows that these are not pure sensory pathways. They are generally branching axons that convey messages through one branch to lower, motor centers and to the thalamus through the other. That is, since the two branches will be transmitting the same message, the thalamic relay receives information not only about sensory events, but also, concurrently, information about instructions that are on the way to motor centers. This dual information, about sensory events and motor instructions, is an implicit part of the message that the thalamus passes to cortex. The axonal branching patterns reveal an anatomical basis of sensorimotor contingencies, which cortical mechanisms are not likely to ignore even when experimental studies do not reveal them.


Key words: Thalamus, cerebral cortex, sensory mechanisms, sensorimotor events, cortical outputs.

C-06
Let’s know formaldehyde: even if we can not escape from it!
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Formaldehyde (HCHO) is an irritative gas that having a pungent smell, colourless and very soluble in water. Everyone may be exposed to formaldehyde because it is found in the polluted atmosphere of cities, domestic air, and cigarette smoke. Formaldehyde is also widely used in industrial and medical settings and employees may be highly exposed to it in these settings. Especially, anatomists and medical students can be exposed to formaldehyde vapour during dissection sessions. Formaldehyde is accepted as toxic over certain doses and the chances of exposed to harmful effects are increased under the room temperature because of its volatility. Formaldehyde exerts an acutely irritating and allergic effect, primarily on the eyes, the upper and lower airways, and the skin. It has been shown that formaldehyde is mutagenic and carcinogenic in experimental studies. In addition, literatures have implicated formaldehyde in having a deleterious effect on germinal cells and inducing primary and secondary infertility in both sexes.

We have carried out many studies on the effects of formaldehyde given by the systemic and respiratory organs in rats. In the light of these studies, the harmful effects of formaldehyde were experimentally shown, and