2003

2002-2004

Papillary tumor of the pineal region was first described by Jouvet et al., in 2003 who reported six cases. The tumor's clinicopathological characteristics as described and illustrated in that series were very similar to the description of some entities reported by neuropathologists from different parts of the world. Many more independent case reports were published after Jouvet et al.'s initial report [1].

Minimally invasive transforaminal lumbar interbody fusion was first described in the literature by Foley et al [2] in 2003.

SMG III bAVMs constitute a heterogeneous group of lesions with various combinations of sizes, eloquence, and venous drainage patterns. This heterogeneity led Lawton in 2003 to propose a subdivision of SMG III bAVMs into four subtypes as follows: type IIIA or S1V1E1 (small size, deep venous drainage, and eloquent localization); type IIIB or S2V1E0; type IIIC or S2V0E1; and type IIID or S3V0E0. In addition, a supplemental grading scale, known as the supplementary Spetzler-Martin grading scale, was introduced in 2010

The International Study of Unruptured Intracranial Aneurysms (ISUIA) in 2003.

The thrombolysis in cerebral infarction (TICI) grading system was described in 2003 by Higashida et al. [3] as a tool for determining the response of thrombolysis for ischemic stroke

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The Food and Drug Administration (FDA) approved Deep brain stimulation DBS as a treatment for essential tremor in 1997, for Parkinson's disease in 2002, dystonia in 2003, and obsessive-compulsive disorders, in 2009. DBS is also used in research studies to treat chronic pain, PTSD, and has been used to treat various affective disorders, including major depression; neither of these applications of DBS have yet been FDA-approved. While DBS has proven effective for some patients, potential for serious complications and side effects exists.

In 1958, four visionary Swiss surgeons shared a common goal: to conduct research into bone healing within a structured, coordinated study group. It was effectively the birth of the AO (Arbeitsgemeinschaft für Osteosynthesefragen—literally translated, “working group for bone fusion issues”).

Year over year, its scope has expanded to keep pace with rapid developments in musculoskeletal surgery and patient care, and in 1984 the AO Foundation was formally established.

By the late 1990s, a group of spine surgeons realized the potential of a specialist organization with a focus on spine. Headed by John Webb, Max Aebi, and Paul Pavlov, and supported by the AO's industrial partners, their initiative led to the creation of an AO Specialty Board for Spine Surgery in 2000. Its mission was to grow spine expertise as a key competence of the AO Foundation, promoting and supporting the individual needs of spine surgeons.

Following a highly successful pilot period, AOSpine was formally established in 2003.

In his 2003 Presidential Address to the American Association of Neurological Surgeons, Dr. Heros discusses his personal additions to the six basic competencies for which all neurosurgical residents must be tested. The basic competencies are as follows: 1) patient care; 2) medical knowledge; 3) practice-based learning and improvement; 4) interpersonal and communication skills; 5) professionalism; and 6) system-based practice. To these, Dr. Heros proposes to add six supplemental competencies: 1) intellectual honesty, which involves frank discussions about patient complications and admissions of the physician's frailties; 2) scholarship–the art and science of medicine, which recognizes the value of evidence-based medicine but does not discount knowledge derived from experience; 3) practicing in a hyperlegalistic society, which involves tailoring informed consent to fit individual patients' circumstances; 4) time- and cost-efficient practices, in which the physician strives to conserve time and resources by forgoing testing that is not strictly necessary, doing only what is needed to return patients to wellness; 5) approach to patients, which entails acknowledging and respecting the dignity of all patients; and 6) pride in being a neurosurgeon, which carries a sense of elitism without arrogance [4)]

Kobayashi et al. reported reported in 2003 two cases of Brown-Sèquard syndrome produced by herniated cervical disc.

The first patient was a 64-year-old man who presented with right leg weakness and diminished sensation to pain and temperature in the left side below the T4 dermatome. The second patient was a 39-year-old man who presented with right-sided weakness and diminished sensation to pain and temperature in the left side below the T6 dermatome.

Anterior cervical discectomy with fusion was performed for these patients.

These cases revealed contralateral deficit in sensation of pain and temperature of more than a few levels below the cord compression, and showed paracentral protruded disc in magnetic resonance images and cervical spinal stenosis in cervical spine X-rays. Postoperatively, motor and sensory function of these patients returned to normal.

Characteristic finding in discogenic Brown-Sèquard syndrome are contralateral deficit in sensation of pain and temperature of more below than a few levels below the cord compression and paracentral protruded disc with cervical spinal stenosis. Outcomes are favorable in rapid diagnosis by magnetic resonance images and performance of anterior approach [5)].

The impact of the 2003 Duty Hour Restriction mandate in the United States and the Working Time Directive in Europe on neurosurgery training has been immense. This report reviews the current literature studying the implications of these regulations on the quality of neurosurgery training as well as on patient safety. In the majority of publications, limited working hours have resulted in increased postoperative complication rates and diminished in-training surgical experience. In Europe, the reduction in surgical experience had led to a decreased sense of confidence in operating independently by the end of training. This review demonstrates the importance of tailoring a specific framework for the individual needs of each residency program and recommends avoiding the application of universal regulations on all medical professions and training [6)]

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