

to 2021. The linear incision without cutting hair usually is done with small craniotomy, 3-4 cm in diameter, usually for deep located tumors, but also for some cortical tumors.

**Results:** There were no significant differences in outcome and morbidity of these patients compared with the classical opening. Four patients had small local infection, two of them had wound dehiscence that required a wound revision. A small intraoperative additional extension craniotomy was needed for three patients. We registered a significant time reduction of opening and closing, faster recovery, shorter hospitalization and better cosmetic effects.

**Conclusion:** The small incision and keyhole craniotomy could provide significant benefits to the patient, the surgeon, and hospital, compared with conventional opening. Some of advances are less invasive technique, shorter operating time, lower complication rate, faster recovery, shorter hospitalization time postoperatively, improvement in cosmetic effects, and better cost-benefit ratio.

#### BRAIN AND SPINE 2 (2022) 101190 101610 IMPLEMENTATION OF THE “NO ICU – UNLESS” APPROACH IN POSTOPERATIVE NEUROSURGICAL MANAGEMENT IN TIMES OF COVID- 19

L.-E. Qasem<sup>1</sup>, A. Al-Hilou<sup>1</sup>, K. Zacharowski<sup>2</sup>, M. Funke<sup>2</sup>, U. Strouhal<sup>2</sup>, D. Jussen<sup>1</sup>, J. Konzalla<sup>1</sup>, M.-T. Forster<sup>1</sup>, V. Prinz<sup>1</sup>, K. Lucia<sup>1</sup>, M. Czabanka<sup>1</sup>.  
<sup>1</sup> Universitätsklinik Frankfurt am Main, Neurosurgery, Frankfurt am Main, Germany<sup>2</sup> Universitätsklinik Frankfurt am Main, Anesthesiology, Frankfurt am Main, Germany

**Background:** Following elective craniotomy patients routinely receive monitoring on ICU. However, the benefit of ICU monitoring in these patients is discussed controversially. Due to the current COVID-19 pandemic, there are further limitations of ICU capacities. This study aimed to compare this strategy with a standardized management of post-craniotomy patients on ICU.

**Methods:** Two postoperative strategies were compared in a matched-pair analysis: The first cohort included patients treated between May-August 2021 according to the “No ICU – unless” concept (NIU group), where patients were managed on the normal ward postoperatively. The second cohort contained patients routinely admitted to the ICU between February-April 2021 (control group). Outcome parameters contained complications, length of stay, duration to first postoperative mobilization, number of unplanned imaging, number/type of ICU interventions and pre- and postoperative mRS. Patient characteristics were analyzed using electronic medical records.

**Results:** The NIU group consisted of 96 patients, the control group of 75 patients. Complication rates were comparable in both cohorts (16% in NIU vs. 17% in control;  $p=0.123$ ). Groups did not differ significantly in the number of imaging (10% in NIU vs. 13% in control;  $p=0.67$ ), in the type of interventions on ICU (antihypertensive therapy 5% (NIU) vs. 6% (control);  $p=0.825$ ) or in the time to first postoperative mobilization (average  $1.1 \pm 1.6$  days vs.  $0.9 \pm 1.2$  days;  $p=0.402$ ). Length of hospital stay was shorter in the NIU group without reaching statistical significance (average 5.8 vs. 6.8 days;  $p=0.481$ ). There was no significant change in the distribution of preoperative ( $p=0.960$ ) and postoperative ( $p=0.425$ ) mRS scores.

**Conclusion:** Postoperative ICU management does not reduce postoperative complications and has no effect on the surgical outcome of elective craniotomies. The majority of postoperative complications are detected after a 24-hour observation period. This approach may represent a potential strategy to prevent overutilization of ICU capacities while maintaining sufficient postoperative care for neurosurgical patients.

#### BRAIN AND SPINE 2 (2022) 101190 101611 LIFE BALANCE FROM A NEUROSURGEON'S PERSPECTIVE

X. Lambrianou<sup>1</sup>, A. Tasiou<sup>1</sup>, C. Tzerefos<sup>1</sup>, I. Janseen<sup>2</sup>, S. Mihaylova<sup>3</sup>, A.E. Aydin<sup>4</sup>, S. Al-Ahmad<sup>5</sup>, M. Broekman<sup>6</sup>, N. Gazioglu<sup>7</sup>, S.H. Duran<sup>8</sup>, D.L. Ivan<sup>9</sup>, M. Karampouga<sup>10</sup>, H.B. Magnadottir<sup>11</sup>, E. Pajaj<sup>12</sup>, A. Rodríguez-Hernández<sup>13</sup>, G. Rosseau<sup>14</sup>, N. Salokorpi<sup>15</sup>, E. Tsianaka<sup>16</sup>, P. Vayssié<sup>17</sup>, M. Murphy<sup>18</sup>.  
<sup>1</sup> University Hospital of Larissa, Neurosurgery Department, Larissa, Greece<sup>2</sup> Hôpitaux Universitaires de Genève, Department of Neurosurgery, Genève, Switzerland<sup>3</sup> Clinic of Neurosurgery, Sv. Ivan Rilski University Hospital, Medical University of Sofia, Sofia, Bulgaria<sup>4</sup> Arnautkoy State Hospital, Department of Neurosurgery, Istanbul, Turkey<sup>5</sup> Sheffield Teaching Hospitals, Neurosurgery Department, Sheffield, United Kingdom<sup>6</sup> Haaglanden Medical Center and Leiden University Medical Center, Department of Neurosurgery,

Leiden, Netherlands<sup>7</sup> Istinye University, Medical Faculty, Department of Neurosurgery, Istanbul, Turkey<sup>8</sup> Klinik für Neurochirurgie Universitätsmedizin, Göttingen, Germany<sup>9</sup> Bucharest Emergency University Hospital Carol Davila University of Medicine, Department of Neurosurgery, Bucharest, Romania<sup>10</sup> Nicosia General Hospital, Neurosurgery Department, Nicosia, Cyprus<sup>11</sup> Upper Valley Neurology Neurosurgery 106 Hanover St Lebanon, NH, United States<sup>12</sup> Spitali Rajonal Memorial Fier Qendër Afrim i Ri, Fier, Albania<sup>13</sup> Germans Trias i Pujol University Hospital Universidad Autónoma, Department of Neurological Surgery, Barcelona, Spain<sup>14</sup> George Washington University School of Medicine and Health Sciences, Department of Neurosurgery, Washington, DC, United States<sup>15</sup> Oulu University Hospital, Oulu, Finland and Research Unit of Clinical Neuroscience, Medical Research Center, Oulu University, Department of Neurosurgery, Oulu, Finland<sup>16</sup> International Hospital, Neurosurgery Department, Salmiya, Kuwait<sup>17</sup> Hôpitaux Universitaires de Genève (HUG), Department of Neurosurgery, Geneva, Switzerland<sup>18</sup> NHNN, Queen Square, Department of Neurosurgery, London, United Kingdom

**Background:** It is widely accepted that neurosurgery is one of the most demanding specialties. Independently of gender, neurosurgeons must merge the exhausted professional program with their personal lives, family, and child rearing responsibilities. In our communication, we would like to outline the role of a neurosurgeon in the household and child rearing and its impact on work-family balance and career pursuing.

**Methods:** We used an anonymous, electronic, 59-item web-based survey using the Google Forms platform (June 24th to October 31st, 2021). The survey was administered to National Neurosurgical Societies of Europe, and European Member Societies of the European Association of Neurosurgical Societies (EANS). Residents, consultants/attendings and retired neurosurgeons were eligible to fulfill the questionnaire.

**Results:** In total, 205 responses were received from 19 European countries. Our study population was reassigned to two gender-associated groups (87F, 118M). We found that neurosurgeons contribute a lot to the homework; however, females contribute more. Females spend much more time for cleaning (44.83%), cooking (59.77%) and housekeeping (37.93%) compared to males (11.02%, 16.95% and 25.42%, respectively). It is of note that females are more likely to be alone (37.93%), while males earn significantly more money (73.27%). Females are recognized to be more competent multi-taskers. Lifestyle and work/life balance is the most common reason for not being a neurosurgeon again (58.62%). Most neurosurgeons (71.22%) believe that gender issues constitute a disadvantage in career pursuing; pregnancy and child rearing are important (59.59%). Free time is the key factor for an easier neurosurgeon's career (56.59%). Therefore, men often do not recommend neurosurgery to a female medical student (69.51%).

**Conclusion:** In general, female surgeons, including neurosurgeons, are facing genderinequities. Supportive facilities at hospitals, flexible programs, leadership training, negotiating skills, networking, and the development of female role models and mentors are essential to promote diversity in neurosurgery.

#### BRAIN AND SPINE 2 (2022) 101190 101612 ANATOMICAL STUDY OF PTERION IN SERBIAN POPULATION

M. Stanić<sup>1</sup>, M. Mihajlović<sup>1</sup>, M. Bulatović<sup>1</sup>, M. Samardžić<sup>1</sup>, I. Popović<sup>1</sup>, V. Miladinović<sup>1</sup>, A. Petrović<sup>1</sup>, M. Marinković<sup>1</sup>, N. Zakić<sup>1</sup>, V. Aleksić<sup>1</sup>.  
<sup>1</sup> Clinical Hospital Center Zemun, Neurosurgery, Belgrade, Serbia

The pterion is the most commonly used landmark in neurosurgery, representing the place where frontal, parietal, temporal, and sphenoid bones join. It is an important guide for approaches to the anterior and middle cranial fossa. Numerous variations in pterion shape occur in the general population. The most frequently used classification is Murphy's classification of pterions including sphenoparietal, frontotemporal, stellate, and epipteric. We checked the prevalence of anatomical variations of pterion in the Serb population. We used skulls that are kept in the Institute for Forensic Medicine "Milovan Milovanović". We analyzed 20 skulls (40 pterions) from the museum of the mentioned institute, and from the autopsy records, it was confirmed that these are adults, who are Serbs by nationality and who died from death that did not lead to skull deformities. The most common was sphenoparietal form, which we found in 28 cases (70.0%), while in second place was frontotemporal, which was found in 7 cases (17.5%). Epipteric and stellate forms were very rare, ie we found them in a total of 3 cases, the first in 2 cases (5.0%) and only one case of the stellate form (2.5%).