Introduction: The incidence of fungal rhinosinusitis in European counties is steadily growing. The reason behind this is the increased usage of immunosuppressive therapy, antibiotics and changes in everyday behaviors (increased stays in rooms with air-condition).

Methods: The study included 21 patients diagnosed with fungal rhinosinusitis. The patient's data was collected from their medical history.

Results: The mean age of the patients was 45 ± 16.51, with females being more often affected (11/21). The most commonly affected sinus was the maxillary sinus (54.67%), after that the sphenoid (20.83%), posterior ethmoid (18.5%), anterior ethmoid (8.33), and frontal (4.17%). Aspergillus was the most common cause (57.14%), mucormycosis was found once (4.78%). Staphylococcus aureus was isolated in 7 (33.33%) patients. Clinical symptoms were dominated by intensive facial pain and nasal secretion (found in all patients). Nasal congestion was present in 85.71% patients, less common was loss of sense of smell, in 47.62%. Endoscopic results showed significant differences between the characteristics of mucosa and mucus of the healthy and affected side of the patient's face. Significant differences are present in CT scans in all sinuses when the sinuses of the healthy and affected side of the patient's face were compared.

Conclusion: Clinical symptoms of patients with fungal rhinosinusitis were dominated by facial pain, nasal secretion and nasal congestion. Endoscopy shows pathological changes in the mucosa of the affected side of the patient's face, with viscous mucous secretions. Intraoperative findings show unilateral affection of the sinuses in all patients, most commonly in the maxillary sinus. The sphenoid snius was less commonly affected, the ethmoid and frontal were rarely affected. Aspergillus is proven to be the most common cause.

PS175

Predictors for recurrent spontaneous intracerebral hemorrhage: A retrospective study

Catarina Castro Alves [1,2,*], Hipólito Nzwalo [1,2], Ana Marreiros [1,2]

[1] *Departamento de Ciências Biomédicas e Medicina, Universidade do Algarve, Portugal*
[2] *Algarve Biomedical Center, Universidade do Algarve, Portugal*
E-mail address: catarinacastro@yahoo.com
(C.C. Alves).

Aim: The aim of this work was to determine predictors for recurrence of intracerebral hemorrhage (ICH), which may allow the identification and more appropriate management of patients at higher risk of recurrent ICH.

Introduction: The prognosis of recurrent bleeding seems to be worse than that of the first ICH. However, only a limited number of studies report the frequency of recurrence in ICH and attempt to characterize which factors may be associated with tendency for repeated hemorrhagic events.

Methods: We analyzed data from 549 patients admitted for treatment of ICH at the Unit of Faro of the Algarve Hospital Center, followed over a period of 5 years. 189 patients with a Rankin at discharge equal to 6 were excluded from the analysis.

Results: We identified 24 patients (6.7%) with recurrent ICH. Recurrence was significantly more frequent in woman (10.9%) then in men (4.4%) ($p < 0.05$). By comparing patients with recurrent ICH with patients with isolated ICH, we found that recurrence was associated with more advanced ages at the time of the first ICH, but only for men (76 years for recurrent ICH and 68 years for isolated ICH) ($p < 0.05$). There was a tendency towards recurrence when the bleeding was lobar (33% of recurrence, and 24% for non-lobar bleedings), although no statistical significance could be found. Other factors, such as previous hypertension were not associated with increased risk of recurrent ICH.

Conclusion: In this series of patients, we identified sex and age as predictors for ICH recurrence.

PS133

Randomized study to compare two methods of e-learning of ECG interpretation among medical students

Agnieszka Stępień *, Michał Pacia, Sebastian Janiec, Wojciech Chemielak

Students' Scientific Group at the Department of Cardiac and Vascular Diseases IC UJ CM in The John Paul II Hospital in Krakow, Poland
E-mail address: agaa.stepien@gmail.com
(A. Stępień).

Aim: To compare the effectiveness of two methods of ECG e-learning among medical students: collaborative e-learning (C-el) and individual e-learning (I-eL).

Introduction: Electrocardiogram (ECG) interpretation is an essential skill in medicine. The best method of ECG education has not been determined.

Methods: Sixty 5th-year students from the Jagiellonian University Medical College were randomly assigned in a 1:1 ratio to the C-eL and I-eL groups. C-eL group students were further randomly divided into 6 subgroups of 5 students. Students from the I-eL group received by e-mail an ECG recording with comprehensive description every second day; at that time students from the C-eL group received the ECG recording without any description. C-eL students were encouraged to cooperate in analyzing the ECG in subgroups using internet platform and were expected to submit interpretation of the ECG recording to coordinator after 48 h. Afterwards they received comprehensive description of the ECG. Before starting the study all students participated in a pretest assessing their basic theoretic knowledge. The effects of e-learning were assessed at a final e-test. The main endpoint of the study was the number of students who passed the final e-test.

Results: Basic knowledge was similar in both study groups. Students from the I-eL group answered correctly to 9.0 ± 1.0 ($90 \pm 10\%$) and from the C-eL group to 9.5 ± 0.6 ($95 \pm 6\%$) questions, $p = 0.07$.

The main endpoint was achieved more frequently in the C-eL than in the I-eL group: 17 (63%) vs 10 (35.7%) students respectively, $p = 0.045$. C-eL group students, as compared to I-eL group students, achieved more points in the final e-test (12.3 vs. 11.0 points respectively, $p = 0.036$) and also better results in ECG interpretation (4.1 vs. 3.4; $p = 0.03$).

Conclusion: Collaborative e-learning of electrocardiography in 5th year medical students is superior to individual e-learning.