

têm sido a percepção dos estudantes pré-graduados relativamente à formação avançada de disseção anatómica.

**Objetivos:** Caracterizar a percepção dos estudantes de diversos ciclos de estudos relativamente ao modelo adotado no curso avançado de disseção anatómica.

**Material e Métodos:** Estudantes que frequentavam ciclos de estudos do Instituto Universitário de Ciências da Saúde [Ciências Biomédicas (CBM); Ciências Laboratoriais Forenses (CLF); Medicina Dentária (MD)] entre 2016 e 2019. Os que realizaram o curso de disseção, foram convidados a completar um questionário com questões em escala Likert de cinco pontos relativamente ao funcionamento do curso, formadores (Q1 a Q3) e à percepção relativa à sua utilidade (Q4 a Q6). O software JASP 0.16.1.0. foi utilizado para análise estatística descritiva e ANOVA. **Resultados:** Do total 76 estudantes, 61 eram de CBM, 9 CLF e 6 MD. A

taxa de respostas foi 100%. Houve mais estudantes do sexo feminino (80,3%) a frequentar o curso de disseção. A idade dos estudantes variou entre 19-40 anos (CBM), 19-23 anos (CLF) e 22-33 anos (MD). Sobre o funcionamento registou-se uma média (coeficiente de variação, CV) respostas de 4,7(0,10) em Q1, 4,3(0,19) em Q2 e 4,57(0,11) em Q3. Sobre a percepção do estudante da utilidade do curso registou-se médias de 4,8(0,08) em Q4, 4,6(0,12) em Q5 e 4,7(0,12) em Q6. Não foram encontradas variações significativas entre os estudantes dos diferentes ciclos de estudos. **Conclusões:** A configuração opcional e o modelo do curso de disseção teve avaliação positiva dos estudantes dos diferentes ciclos de estudos. A implementação deste conceito foi percebida como vantajosa, estando alinhado com um currículo orientado para o contexto clínico e aprendizagem ativa baseada em competências.

**Palavras-chave:** disseção cadavérica; ensino anatomia; formação complementar; aquisição de competências; estudantes pré-graduados

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## POSTER 134

### Differential cellular effects of sunitinib and pazopanib targeted drugs for metastatic renal cell carcinoma – an in vitro approach

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#### Resumo

**Introduction:** Sunitinib and pazopanib are tyrosine kinase inhibitors (TKIs) that have been widely used as first-line treatments for advanced Renal Cell Carcinoma (RCC). Despite extensive research into their effects on RCC cells,

toxicity to non-tumorigenic renal cells remains unexplored [1]. **Objectives:** This study aims at providing novel insights into the cellular mechanisms involved in the potential toxicity of sunitinib and pazopanib in tumorigenic and

non-tumorigenic renal cells. **Material and Methods:** Human metastatic RCC (Caki-1) and normal renal (HK-2) cell lines were exposed to 0.1 - 200  $\mu\text{M}$  sunitinib or pazopanib for 48 h. Cell viability was measured through the MTT reduction and LDH leakage assays. Clinically relevant concentrations of sunitinib (2  $\mu\text{M}$ ) and pazopanib (50  $\mu\text{M}$ ) were selected to further elucidate the mechanisms underlying their toxic effects. Antiproliferative activity was assessed by MTT at 24, 48, and 72 h. The production of reactive oxygen species (ROS), intracellular levels of total glutathione (tGSH) and adenosine triphosphate (ATP), and nuclear morphological changes were evaluated 48 h after drug exposure. **Results:** Both TKIs caused a concentration-dependent loss of cell viability, as measured by the MTT assay, which was more pronounced in Caki-1 cells (IC<sub>50</sub> of 2.99 and 3.63  $\mu\text{M}$  for sunitinib and pazopanib) than HK-2 cells (IC<sub>50</sub> of 9.73 and 9.17  $\mu\text{M}$  for sunitinib and

pazopanib). Notably, no cellular membrane rupture was observed using the LDH assay up to a maximum concentration of 25  $\mu\text{M}$  sunitinib and 200  $\mu\text{M}$  pazopanib. Additionally, the results showed that 2  $\mu\text{M}$  sunitinib significantly inhibited RCC cell proliferation but had no effect on HK-2 cells, whereas 50  $\mu\text{M}$  pazopanib exhibited similar antiproliferative activity against Caki-1 and HK-2 cells. Intracellular oxidative stress mediated by both drugs was demonstrated by an increase in ROS formation in tumorigenic and non-tumorigenic cells; however, no statistically significant differences in tGSH and ATP levels were found. Apoptosis was a common mechanism of cell death induced by sunitinib and pazopanib, with treated cells exhibiting bright blue fluorescent, condensed and fragmented nuclei. **Conclusion:** The present data suggest that sunitinib has a more selective anticancer effect than pazopanib, with a consequent highest safety profile.

**Keywords:** renal cell carcinoma; tyrosine kinase inhibitors; antiproliferative; cytotoxicity; in vitro

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## POSTER 135

### Livor mortis

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### Resumo

**Introduction:** Livor Mortis or hypostases is a condition postmortem, it is a physical process and one of the first to be observed on a body. The hypostases happens when blood circulation stops, this process happens because, due to the gravitational force, deposition occurs in the lower portions of the body. As a result of this rest, the skin color is discolored, leaving it with a purple color. Livor mortis can be observed on imaging and autopsy. This color can be observed during 2-4 hours after dead and it happens 1 hour after dead [1,2]. The skin color will not change for 9-12h after death so livor mortis can be observed during this time without any alterations of the color [3]. **Objectives:** This article aimed to clarify the term Livor mortis as well as to understand the advantages of its

usefulness in the context of Legal Medicine. **Methods:** For this article, searches were carried out in databases such as Pubmed. **Results:** The Knowledge of the mechanism of livor mortis is important in forensics, being a factor that can allow the investigator to recognize a rearrangement in the death scene. Imaging and autopsies are techniques used to verify the existence of Livor mortis. The condition can be seen for 9-12 hours after death without significant changes in skin color. **Conclusions:** In short, hypostases is a process that starts occurs after 1 hour after death and it can be observed an alteration of the color skin, this can be seen by human eye or with the help of imaging techniques. It is a very useful tool in the area of Legal Medicine.