an innovative method of teaching the community and a creative tool to enhance trainees' experience and teaching ability.

Coping with the COVID-19 Pandemic: An adapted approach to preclinical teaching of Pathology- Pathophysiology

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Introduction/Objective: The COVID-19 pandemic affected all aspects of medicine, from patient care to medical education. Pandemic-related restrictions regarding in-person teaching activities at our medical college required adoption of an online, live, virtual format for all activities in our preclinical Pathology-Pathophysiology (PP) courses. Adaptation of teaching approaches using available technology allowed for uninterrupted learning and may serve to contribute to future innovations in medical education.
Methods/Case Report: Using Zoom as a platform, all lectures and interactive group exercises were converted to a live virtual format. Live Zoom lectures were also recorded and, subsequently, made available to students, in order to provide additional opportunities for engaged learning. Interactive, case-based and self-directed exercises, and gross specimen reviews were also held using the live virtual format. Fourth year students enrolled in our education concentration helped provide intermittent virtual peer reviews for the 2nd year students. All exams were administered via an electronically monitored virtual format.
Results (if a Case Study enter NA): Overall, performance of the 2020-2021 class on in-house, multiple choice question (MCQ) exams in our PP courses was typically at or above the performance of prior classes, while class performance on a standardized national subject exam (NBME) in Pathology was above the national average, which was consistent with prior class performances, and significantly higher ($p = 0.01$) on average in 2021 than in 2019 (2.28 points) and 2020 (2.27 points). Additional analyses are being conducted on demographic subgroups within each cohort (sex, MCAT score, socioeconomic status, underrepresented in medicine, registered for disability accommodations) to determine if any particular group's performance was impacted by this change of format.
Conclusion: Despite the restrictions imposed by the pandemic, student performance on in-house and standardized national exams in the NYMC Pathology-Pathophysiology courses were similar to recent pre-pandemic years. Our endeavors to provide a strong preclinical educational experience in Pathology-Pathophysiology during the pandemic resulted in learning outcomes on a par with those in recent years, despite the rapid transition to a completely online, live virtual format.Our data suggest that continued use of virtual teaching methods is a viable option in on-going medical curricula

DOG1 expression is in common human tumors: A tissue microarray study on more than 15,000 tissue samples.

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Introduction/Objective: Introduction: DOG1 (Discovered on GIST1) is a voltage-gated calcium-activated chloride and bicarbonate channel that is highly expressed in interstitial cells of Cajal and in gastrointestinal stromal tumors (GIST) derived from Cajal cells.
Methods/Case Report: Methods: To systematically determine in what tumor entities and normal tissue types DOG1 may be further expressed, a tissue microarray (TMA) containing 15,965 samples from 121 different tumor types and subtypes as well as 608 samples of 76 different normal tissue types was analyzed by immunohistochemistry.
Results (if a Case Study enter NA): Results: DOG1 immunostaining was found in 67 tumor types including GIST (95.7%), esophageal squamous cell carcinoma (31.9%), pancreatic ductal adenocarcinoma (33.6%), adenocarcinoma of the Papilla Vateri (20%), squamous cell carcinoma of the vulva (15.8%) and the oral cavity (15.3%), mucinous ovarian cancer (15.3%), esophageal adenocarcinoma (12.5%), endometrioid endometrial cancer (12.1%), neuroendocrine carcinoma of the colon (11.1%) and diffuse gastric adenocarcinoma (11%). Low level-DOG1 immunostaining was seen in 17 additional tumor entities. DOG1 expression was unrelated to histopathological parameters of tumor aggressiveness and/or patient prognosis in cancers of the breast (n=1,002), urinary bladder (975), ovary (469), endometrium (173), stomach (233), and thyroid gland (512).
Conclusion: High DOG1 expression was linked to estrogen receptor expression in breast cancer ($p<0.0001$) and absence of HPV infection in squamous cell carcinomas ($p=0.0008$). In conclusion, our data identify several tumor entities that can show DOG1 expression levels at similar levels as in GIST. Although DOG1 is tightly linked to a diagnosis of GIST in spindle cell tumors, the differential diagnosis is much broader in DOG1 positive epithelioid neoplasms.

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