prophylaxis using fluconazole 400 mg once daily versus amphotericin B lipid complex 2.5 mg/kg three times per week in adult patients with ALL during the neutropenic nadir who received hyper-CVAD as part of their chemotherapy regimen. **Methods** This was a retrospective, cohort chart review study conducted in eligible patients with ALL who received a hyper-CVAD-based chemotherapy regimen between 1 January 2007 and 31 December 2016 at KAMC, Jeddah. We included patients with ALL aged older than 14 years who completed at least one course of hyper-CVAD and received antifungal prophylaxis. We excluded patients who received the BFM regimen. Data were collected using a hospital information system. The primary endpoint was the incidence of fungal infection, which was assessed using microbiology data and imaging studies for radiological evidence of fungal infections. The secondary endpoints were to assess QTc prolongation in Philadelphia-positive ALL that is associated with fluconazole use in combination with tyrosine kinase inhibitor, and lastly the cost impact based on the type of antifungal prophylaxis used. **Results** A total of 105 cycles of hyper-CVAD were reviewed. In 70 cycles, fluconazole was used as antifungal prophylaxis (n=70) and in 35 cycles amphotericin B lipid complex was used (n=35) as antifungal prophylaxis. Microbiologically documented fungal infection was found in two of 70 cycles in the fluconazole group and radiologically documented fungal infection was found in one patient in the fluconazole group. QTc prolongation was observed in 12 cycles. In nine of 12 cycles, events of QTc prolongation were observed during the study, fluconazole was used as antifungal prophylaxis, and patients were on tyrosine kinase inhibitor. In three of 12 cycles, events of QTc prolongation were observed during the study, amphotericin B lipid complex was used as antifungal prophylaxis, and patients were on tyrosine kinase inhibitor. **Conclusion** Fluconazole is considered as standard antifungal prophylaxis in patients with ALL with acceptable safety profiles. Fluconazole had comparable efficacy to amphotericin lipid complex. Fluconazole may cause QTc prolongation when used in combination with tyrosine kinase inhibitors and patients need to be monitored more closely when this combination is used in those with Philadelphia-positive ALL.

**11** CONSISTENCY OF CT-KUB RADIATION DOSE AND EXPOSURE PARAMETERS IN KING ABDUL AZIZ MEDICAL CITY IN JEDDAH: QUALITY ASSESSMENT

Rahaf Hameed Almoutaini, Shireen Hassan Bugis, Zainab Alb Alharbi, Samarham Mohammad Alattas, Ahmad Subahi, Khalid Alshamrani, Shaza Alsharif. Radiology, King Saud bin Abdulaziz University for Health Sciences

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**Background** Computed tomography (CT) is a type of medical imaging that uses x-rays to generate cross-sectional images of the body. Although CT improved the limitations in conventional radiography, the effective dose for CT procedures is higher than the dose of a conventional radiographic examination of the same part. For instance, the radiation dose for kidney, ureter, and bladder (KUB) in conventional radiography is 0.7 mSv, whereas in the CT scan it is 10 mSv. Therefore, patient radiation safety in compliance with American College of Radiology (ACR) standards has to be maintained. In this study, we aimed to evaluate the patient radiation dose delivered in unenhanced CT-KUB examinations using two CT machines at King Abdulaziz Medical City in Jeddah (KAMC-JD).

**Methods** This was a retrospective, cross-sectional study of all patients who had unenhanced CT-KUB examinations in KAMC-JD between 1 January and 30 June 2018. Patient characteristics and radiation parameters were obtained from the hospital information system and pictures archiving and communication system, respectively, and compared with the ACR standards.

**Results** A total of 264 patients were included in the study: 199 (75.5%) examinations were performed with machine 1 and 65 (24.6%) were performed with machine 2. Mean age was 48.1±16.3 years and 66.7% of patients were male. Mean body-mass index (BMI) was 29.59±6.45 kg/m2. The mean volume CT dose index (CTDIvol), dose-length product (DLP), time(s), pitch, and effective dose were significantly different in the CT machines with p values between 0.004 and <0.001.

No significant differences were found in kVp, slice number, slice thickness, length of cover, and effective dose with use of different types of CT. Both CT machines were within the ACR standard range of 10 mSv. There was a positive strong correlation between BMI (29.6 kg/m2) and the effective dose (p<0.001).

**Conclusion** The radiation doses delivered by the two CT scanners in KAMC-JD are compliant with ACR standards. Periodic assessment is recommended every 2 years.