

(*del Radiology)

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October State of the Art

Müllerian Duct Anomalies: Imaging and Clinical Issues¹

While estimates of the frequency of müllerian duct anomalies vary widely owing to different patient populations, nonstandardized classification systems, and differences in diagnostic data acquisition, these anomalies are clinically important, particularly in women who present with infertility. An understanding of the differences between these uterovaginal anomalies, as outlined in the most widely accepted classification system—that published by the American Fertility Society (AFS) in 1988—is imperative given the respective clinical manifestations, different treatment regimens, and prognosis for fetal salvage. Although the AFS classification system serves as a framework for description of anomalies,

communication among physicians, and comparison of therapeutic modalities, there often is confusion about appropriate reporting of certain anomalies, particularly those with features of more than one class. Many of the anomalies are initially diagnosed at hysterosalpingography and ultrasonography; however, further imaging is often required for definitive diagnosis and elaboration of secondary findings. At this time, magnetic resonance imaging is the study of choice because of its high accuracy and detailed elaboration of uterovaginal anatomy. Laparoscopy and hysteroscopy are reserved for women in whom interventional therapy is likely to be undertaken.

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November Special Review

Cancer Risks among Radiologists and Radiologic Technologists: Review of Epidemiologic Studies¹

Radiologists and radiologic technologists were among the earliest occupational

groups exposed to ionizing radiation and represent a large segment of the working population exposed to radiation from human-made sources. The authors reviewed

epidemiologic data on cancer risks from eight cohorts of over 270 000 radiologists and technologists in various countries. The most consistent finding was increased mortality due to leukemia among early workers employed before 1950, when radiation exposures were high. This, to-

gether with an increasing risk of leukemia with increasing duration of work in the early years, provided evidence of an excess risk of leukemia associated with occupational radiation exposure in that period. While findings on several types of solid cancers were less consistent, several studies provided evidence of a radiation effect for breast cancer and skin cancer. To date, there is no clear evi-

ce of an increased cancer risk in medical radiation workers exposed to current levels of radiation doses. However, given a relatively short period of time for which the most recent workers have been followed up and in view of the increasing uses of radiation in modern medical practices, it is important to continue to monitor the health status of medical radiation workers.

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December Review

Techniques and Applications of Automatic Tube Current Modulation for CT¹

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Introduction of slip-ring technology with subsequent development of single- and multi-detector row helical computed tomographic (CT) scanners have expanded the applications of CT, leading to a substantial increase in the number of CT examinations being performed. Owing to concerns about the resultant increase in associated radiation dose, many technical innovations have been introdu-

ced. One such innovation is automatic tube current modulation. The purpose of automatic tube current modulation is to maintain constant image quality regardless of patient attenuation characteristics, thus allowing radiation dose to patients to be reduced. This review discusses the principles, clinical use, and limitations of different automatic tube current modulation techniques.