Standardized uptake value as an unreliable index of renal disease on fluorodeoxyglucose PET imaging.

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Fluorine-18 2-fluoro-2-deoxy-D-glucose (FDG) positron emission tomography has been used extensively in the diagnosis of malignant conditions with high rates of sensitivity and specificity. However, increased FDG uptake is not limited to malignant tissue. In general, lesions with a mild degree of FDG uptake as measured by standardized uptake values less than 2.0 are considered benign, whereas those with values greater than 2.5 are usually regarded as malignant. Standardized uptake values in the kidney can be as high as 22 as a result of excretion of FDG through urine. Two cases are reported in which renal abnormalities could not be distinguished from urine based on standard uptake values alone.

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