**Background**

Computed tomography (CT) can help accurately estimate body size in dogs and cats, which is important for chemotherapy dosing and radiation therapy. The body size of pets varies as much as 15% between individuals with similar body surface area (BSA) estimates. This variability is seen in length vs. weight and shape conformation among dogs of similar size, which can lead to variability in BSA.

**Methods**

The CT scans were contoured for BSA using both RayStation and XiO treatment planning software. The original 12 scans from XiO were evaluated using RayStation. Retrospectively, 25 scans from dogs were evaluated in RayStation, and the BSA and volume was evaluated. The patient was contoured, then edited in each 2D plane. A 1 mm thick bolus was applied around each organ.

**Results**

No significant difference was found in BSA using RayStation vs. XiO. Therefore, alternative treatments are needed due to the limitations of XiO.

**Discussion**

Considering the narrow therapeutic index of these drugs, change chemotherapy dosage by the same magnitude. Adding a linear parameter to the current equation, like height or weight, may improve accuracy.

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