

**Usefulness of bone SPECT of the cervical spine:
with special reference to separate visualization
of the trachea and thyroid cartilage**

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We applied bone SPECT for the examination of the cervical spine. A three-head rotating gamma camera SPECT system was employed for this study. The SPECT image disclosed 42.7% of abnormal accumulations in the skeleton not seen with planar imagings. SPECT could separately visualize the trachea and thyroid cartilage and also provided interpretation of abnormality in the anterior part of the vertebral body being difficult with planar imagings only. The trachea cartilage was seen in 55.4% and the thyroid cartilage was seen in 47.3% of patients with anterior neck density in planar imagings. SPECT clarified that marked cervical curvature and diffuse high uptake by the skeleton might cause high intensity of the anterior neck in planar imagings in the case of non-pathological change. We concluded that bone SPECT is a useful diagnostic tool in detecting occult lesion in the skeleton and to rule out extraskelatal accumulations in examination of the cervical spine.

Key words: bone scintigraphy, SPECT, cervical spine, extraskelatal uptake