Hypertrophic osteopathy in a castrated dog with prostatic carcinoma and prostatitis

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A 9-year-old, castrated male Border Collie cross-breed dog first presented to our clinic with fever and lumbar pain. Hematology and biochemistry were not diagnostic and the dog was treated empirically at the owner’s request. Three weeks later the dog developed painful, warm swellings in all distal limbs and radiographs of the distal limbs were consistent with hypertrophic osteopathy. There were no visible chest lesions detected on radiographs. An enlarged prostate was detected on radiographic and ultrasonographic examination. The prostate was cavitated on ultrasonography. The owner was reluctant to pursue further diagnostics.

The dog continued to deteriorate and was euthanized 40 days after presentation due to signs associated with the hypertrophic osteopathy. Post-mortem examination revealed that the patient had a prostatic carcinoma with severe chronic suppurative prostatitis.

Hypertrophic osteopathy with only abdominal masses without an obvious metastasis is uncommon and has not been reported before in a castrated dog with prostatic carcinoma. There is another report of hypertrophic osteopathy associated with prostatic neoplasia in an intact dog without pulmonary metastases.1

Interestingly, in both this case and the other reported case, the tumor was associated with bacterial prostatitis. It is possible that this combination may increase the production of cytokines which lead to development of hypertrophic osteopathy.

Prostatic neoplasia should be considered along with abdominal neoplasia in dogs presenting with hypertrophic osteopathy where no thoracic lesions are found. In addition, we suggest that dogs with both prostatic carcinoma and prostatitis should be treated aggressively for prostatitis when giving palliative care in case this combination leads to hypertrophic osteopathy.

Keywords: Dog, castrated, prostate, carcinoma, hypertrophic osteopathy

Reference