

# SENSIBILITY OF CELL BLOCK TECHNIQUE AND OSTEOCALCIN IMMUNOHISTOCHEMISTRY AT THE OSTEOSARCOMA DIAGNOSIS

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## INTRODUCTION

Osteosarcoma (OSA) is the most common type of bone tumor. It could range about 85% of malignant primary neoplasms of skeleton. In Brazil almost 75% of OSA reach appendicular skeleton while 25% compromise the axial skeleton. The cell block technique (CB) is a procedure that is commonly used at the human medicine. But at the veterinary medicine we have few reports.

## OBJECTIVE

The aim of this work was qualify the sensibility of cell block and osteocalcin immunohistochemistry at the diagnosis of OSA in dogs.

## METHODS

Ten cases of primary OSA of dogs were approached by the CB and immunoassay to osteocalcin technique as follow: 1. Antigenic retrieval in pH 6.0 citrate at the Pascal. 2. Endogenous peroxidase block was performed in H<sub>2</sub>O<sub>2</sub> 3% diluted in metanol. 3. Protein block was performed with 6% Molico<sup>R</sup> milk. 4. All incubations of primary antibody were performed at 4°C temperature overnight. At 1:50 work antibody concentration. 5. Second antibody HRP (envision). 6. DAB – 5 minutes. The positive control was the histopathological exam of each tumor.

## RESULTS

All 10 cases had positive correlation between CB and histopathological analysis with good amount of sample at the CB technique (10/10).

At the osteocalcin immunoassay only one case of cell block sample were negative (1/10).

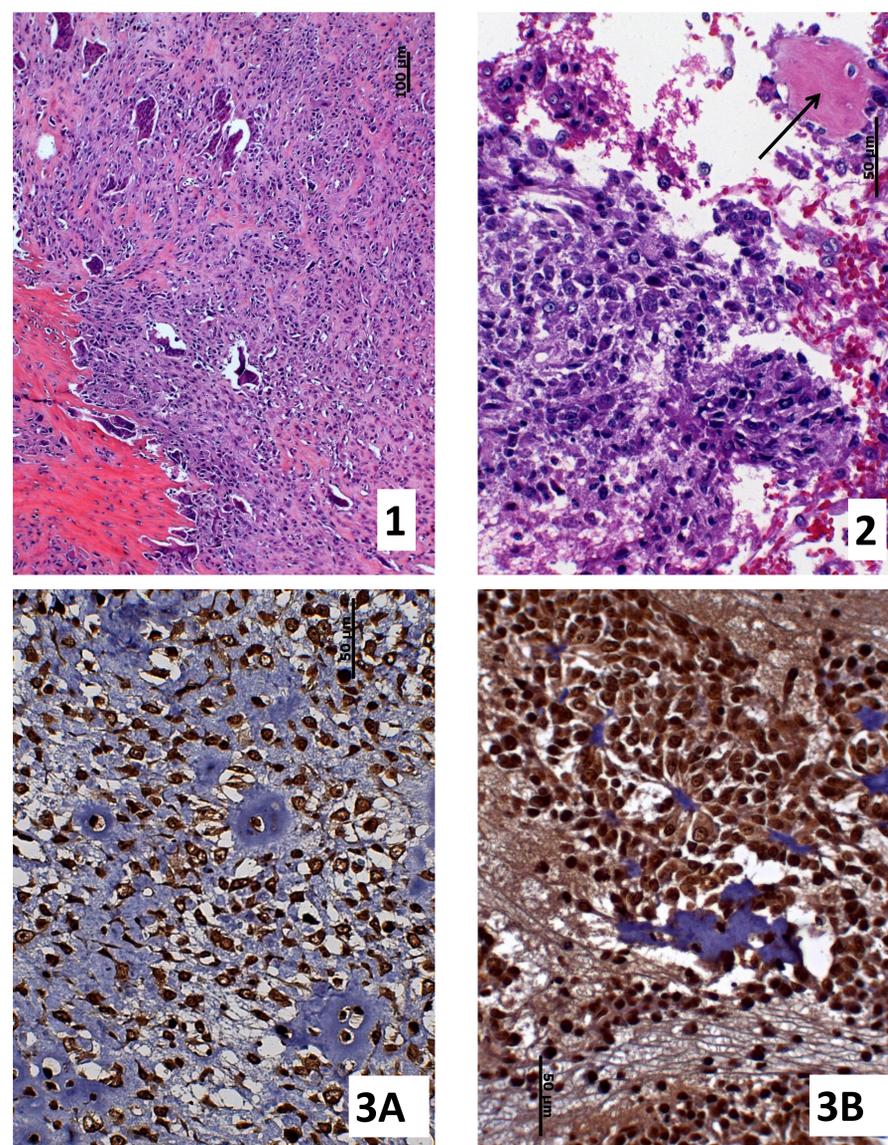


Figure 1. Histopathological control exam. HE.

Figure 2. CB sample of OSA. Note the bone matrix (arrow). HE.

Figure 3. Osteocalcin immunoassay in surgical and CB samples. A and B respectively.

## CONCLUSION

The cell block technique is valid for the diagnosis of OSA cancer in dogs.