**Figure S1. The flow diagram for inclusion of patients.**

Osteosarcoma from January 2000 to February 2015

（N=1133）

**Figure S2**. An example of chemotherapy protocol

Neo-adjuvant Chemotherapy

**MTX**

**MTX**

**DDP**

**ADM**

**IFO、**

**Surgery**

**1**

**2**

**3**

**4**

Adjuvant Chemotherapy

**MTX**

**DDP**

**ADM**

**IFO、**

**1**

**2**

**3**

**4**

**MTX**

**DDP**

**ADM**

**IFO、**

**MTX**

**DDP**

**ADM**

**IFO、**

**5**

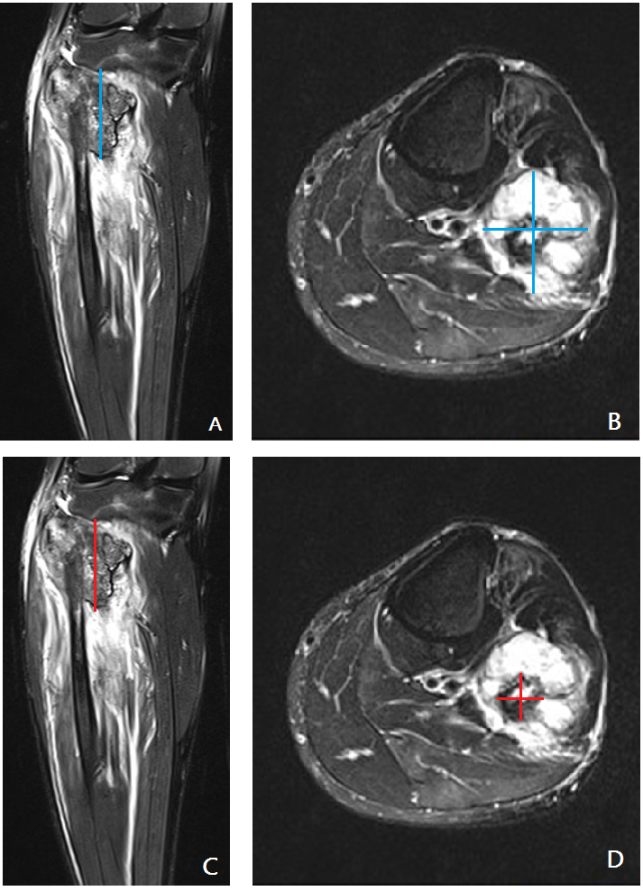
**6**

**7**

**8**

**9**

**Figure S3.** An example of measuring tumor volumes (TVS) and extraosseous tumor volumes (ETVS).



A. Measurement of tumor length from coronary section. B. Measurement of tumor width and depth from transverse section. C. Measurement of intraosseous tumor length from coronary section. D. Measurement of intraosseous tumor width and depth from transverse section.