Cadmium (Cd), is associated with various toxic effects like renal dysfunction and osteomalacia (1). The bio-accumulation of this heavy metal along the food chains can lead to a dangerous low-level exposure mainly for “extreme consumers” of some food (2). Direct pathological consequences of low level exposure for men are not yet well known (3).

In Marche Region the control of Cd residues includes equine and swine species; during past five years, a regular exceeding of the set value (Reg.466/2001/CEE) was noticed in horses living in the area of Catria and Petrano mountains, in the central part of Marche region, where they are free range bred for human consumption (Fig. 1).

To better understand the diffusion of contamination and the potential risk for consumers, a survey was carried out for the evaluation of Cd concentration in body tissues of a biological indicator belonging to the same area. In the survey was also included the nearest natural park, named Gola della Rossa Park.

Wild boar (Sus scrofa) has been chosen for sampling because it especially concentrates cadmium in liver and kidneys, but hunted wild boars (WB) are not included in regular surveillance programs for food contaminants.

Chosen districts are characterised by natural and agricultural landscape.

**INTRODUCTION**

**RESULTS**

Mean concentration in the analysed biological tissues are given in table 1. 42% of sampled livers and 77.6% of sampled kidneys exceeded the maximum limit approved by Reg.466/2001/CEE for human consumption.

<table>
<thead>
<tr>
<th>number of samples</th>
<th>mean of concentration values</th>
<th>stand. dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>livers</td>
<td>88</td>
<td>0.5</td>
</tr>
<tr>
<td>kidneys</td>
<td>76</td>
<td>3.08</td>
</tr>
</tbody>
</table>

Cd concentration seems to be higher in kidney than in liver without differences between younger and older animals (Fig. 2).

**REFERENCES**

3. Cadmium in food. Report prepared by Michel Boisset & Jean-Francois Narbonne for the committee for health control of foodstuff - Council of Europe Publishing
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