Accumulation of polychlorinated biphenyls and organochlorine pesticide in pet cats and dogs: assessment of toxicological status.

Storelli MM, Storelli A, Barone G, Franchini D.

Pharmacological-Biological Department, Chemistry and Biochemistry Section, Veterinary Medicine Faculty, University of Bari, Strada Prov. le per Casamassima Km 3, 70010 Valenzano (Ba), Italy. m.m.storelli@veterinaria.uniba.it

PCB and DDT concentrations were determined in the adipose tissue of cats and dogs from Southern Italy. In cats p,p'-DDE was the most abundant DDT component (95.0%), while in dogs these compounds were absent, except in two specimens. PCB concentrations were higher in cats (199.02 ng g(-1) lipid weight) than in dogs (41.61 ng g(-1) lipid weight). Also there were inter-specific differences in the contribution of the different congeners to PCBs, although PCB 138, PCB 153 and PCB 180 were the most representative congeners in both species. Animals from one location, Taranto City, had significantly elevated concentrations of dioxin-like PCBs compared to the other locations. Consequently the estimated mean 2,3,7,8-tetrachlorodibenzo-p-dioxin toxic equivalents (TEQs) of coplanar PCBs were higher in these animals (cats: 0.65 pg g(-1) lipid weight; dogs 0.29 pg g(-1) lipid weight) than in the other ones (cats: 0.12 pg g(-1) lipid weight; dogs: 0.001 pg g(-1) lipid weight).

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