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# Maize Based Diets and Mouse-Killing Behavior in Rats

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Mouse-killing behavior is correlated with decrease in brain serotonergic tone, caused by injection of p-chlorophenylalanine (which blocks serotonin synthesis), or by tryptophan free diets, which slow down serotonin production because source of tryptophan is done only by endogenous proteins. Another experimental method is maize exclusive diet: maize is, among cereals, that one which has the lowest tryptophan content, and the lowest value of the ratio between tryptophan and its concurrent amino acids for neuron access. In a lot of experiments, maize based diets gave rise to brain serotonin deficiency and to mouse-killing behavior in previous non killer rats.

## Materials and Methods

Fifty one adult male Wistar Rats were housed individually in cages, and their aggressive or muricidal tendencies had been previously checked by appropriate tests: all of them were not aggressive, although they had been placed in an exciting muricidal behaviour environment.

These rats were divided into two groups: a first one of twenty were fed normally, and a second one of thirty one received a corn meal cooked with water (polenta), for 4 days. Water was provided *ad libitum* to both groups.

## Results

Results are shown in the following table.

| Rats | Total | **Aggressive on the 4th day** | **Muricide on the 4th day** |
|---|---|---|---|
| Control group | 20 | 0 | 0 |
| Treated group | 31 | 13 | 3 |

## Conclusions

The 51.61% of treated rats changed their original non-aggressive behaviour.