

CHARACTERISATION OF THE FEMALE GUINEA PIGS AS A MODEL FOR COUGH RESEARCH

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Exclusion of females from experimental studies lead to gender bias in research. Chronic cough affects mainly postmenopausal females and the research failed to explain why. Therefore, the treatment is missing. However, only male guinea pigs are used in cough research. The aim of our study was to assess the female guinea pigs as a variable for cough research and to compare it with male groups. Cough response to citric acid (0.4M) was obtained in both groups (n= 12) for each; the cough was tested several times, min 2 days apart to avoid tachyphylaxis. The cough was detected from the airflow traces, cough sound analysis and the presence of cough motor pattern. Cough response to citric acid in females and males is similar in number of cough bursts in repeated measurements for female and male, cough latencies in female were much shorter than in male. Differences are not significant due to high variability. Both groups have high variability of the cough response with the similar distribution of hypo/hyper and normoreactors. Further investigations are necessary to characterize the cough response in female guinea pigs in large number of animals and cough response of mixed groups to see their potential in cough research.