

عنوان مقاله:

The effects of bedding materials on learning and memory performance and texture preference in rats

محل انتشار:

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خلاصه مقاله:

The present study was designed to investigate the effect of different available bedding materials on learning and memory performance, bedding texture preference as well as intra-cage ammonia concentration in rats. The animals were housed on different bedding types for two weeks. Bedding materials were produced in the same sizes from poplar, walnut, pistachio, apricot, almond woods and alfalfa steam and live. Spatial and passive avoidance learning and memory were assessed by Morris water maze (MWM) and shuttle box tasks. A modifying six-arm radial maze was used to assess bedding texture preference by rats. For each bedding groups, average ammonia level (ppm) over a week was calculated. The data indicated that the rats that had walnut and almond chips show better learning and memory performance in both MWM and shuttle box tests than other groups. The weakest learning and memory performances were observed in rats exposed to alfalfa bedding. In texture preference test, the rats spent more time in walnut and almond arms, and less time in alfalfa. Besides, the total water and food intake as well as the number of visit to alfalfa arm were decreased as compared to other arms. Moreover, in alfalfa bedding cage, average intra-cage ammonia level was utmost. Overall, current bedding materials may contain diverse biochemically effective .compounds or individual micro edges which alter learning and memory performances of rats

کلمات کلیدی:

Bedding materials, learning and memory, Texture preference, Rats

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