

实验报道

人芽囊原虫感染小鼠试验

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摘要

目的 通过感染不同免疫状态ICR小鼠寻求人芽囊原虫(*Blastocystis hominis*, B.h)对小鼠的易感途径及有效感染数量。方法 ①将104、105、106个培养3代的B.h分别经口及直肠感染ICR小鼠。②106个B.h经直肠感染免疫功能低下该种小鼠, 观察感染后不同时间小鼠胃肠道B.h繁殖情况及消化道组织病理改变。结果 B.h经口及直肠两种途径均可使小鼠感染, 免疫功能低下小鼠感染后出现行动迟缓、精神萎靡、嗜睡、体重下降等, 部分小鼠出现腹泻, 排粘液便等症状, 个别小鼠死亡。经解剖肉眼观察见空回肠、回盲部、结肠的肠壁组织严重水肿、充血、淤血等。在小鼠胃肠道内容物中均发现B.h。病理切片显示, 小肠及结肠黏膜上皮脱落, 黏膜下层不同程度的炎性细胞浸润, 腺体结构不完整。结论 B.h经直肠比经口更易感染小鼠, B.h可寄生于小鼠整个胃肠道。小鼠免疫功能降低时, B.h可迅速繁殖、致病性增强, 并引起严重的肠黏膜病理改变。

关键词 [人芽囊原虫](#) [感染](#) [小鼠](#) [病理变化](#)

分类号

Experimental Infection of Mice with *Blastocystis hominis*

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Abstract

Objective To seek a better pathway and proper number of parasites for *Blastocystis hominis* (B.h) infection in normal and immunocompromised ICR mice. Methods ① 104, 105 and 106 B.h, cultured in RPMI 1640 medium from 3 generations were used to infect mice through oral and rectum; ② 106 B.h were used to infect immunocompromised mice through rectum. The reproduction of B.h in gastrointestinal tract and the pathologic changes in the tissues were observed. Results Mice were infected by B.h through either oral or rectum. The infected immunocompromised mice showed slow locomotion, depressed, lethargy, and descended body weight. Some infected mice discharged mucus feces, a few of them died during the experiment. Parasites were found in the whole gastrointestinal tract. Severe edema, hyperemia and congestion were observed in the tissues of jejunum, ileum, cecum and colon. The epithelia of small intestine and colonic mucous membrane showed exfoliation, inflammatory cell infiltration in submucosa, and structural changes in glands. Conclusion Mice were more susceptible to *Blastocystis hominis* infection through rectum than orally. The parasites can be found in the whole gastrointestinal tract of mice, and can breed rapidly and cause significant pathological change in the gastrointestinal mucosa in immunocompromised mice.

Key words [Blastocystis hominis](#) [Infection](#) [Mice](#) [Pathology](#)

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