

2001, 20: 4674 - 4683.

[11] Guo S, Kempthues KJ. *par-1*, a gene required for establishing polarity in *Caenorhabditis elegans* embryos, encodes a putative Ser/Thr kinase that is asymmetrically distributed[J]. Cell, 1995, 81: 611 - 620.

[12] Cogoni C, Romano N, Macino G. Suppression of gene expression by homologous transgenes[J]. Antonie Van Leeuwenhoek, 1994, 65: 205 - 209.

[13] Kennerdell JR, Carthew RW. Use of dsRNA-mediated genetic interference to demonstrate that *frizzled* and *frizzled 2* act in the wingless pathway[J]. Cell, 1998, 95: 1017 - 1026.

[14] Misquitta L, Paterson BM. Targeted disruption of gene function in *Drosophila* by RNA interference (RNAi): a role for *nautilus* in embryonic somatic muscle formation[J]. Proc Natl Acad Sci USA, 1999, 96: 1451 - 1456.

[15] Wargelius A, Ellingsen S, Fjose A. Double-stranded RNA induces specific developmental defects in zebrafish embryos[J]. Biochem Biophys Res Commun, 1999, 263: 156 - 161.

[16] Wianny F, Zernicka-Goetz M. Specific interference with gene function by double-stranded RNA in early mouse development[J]. Nat Cell Biol, 2000, 2: 70 - 75.

[17] John DR. Gene silencing: A faster way to shut down genes[J]. Science, 2001, 292: 1469 - 1471.

[18] Bass BL. Double-stranded RNA as a template for gene silencing [J]. Cell, 2000, 101: 235 - 238.

[19] Gura T. A silence that speaks volumes [J]. Nature, 2000, 404: 804 - 808.

[20] Ikegami M, Fraenkel-Conrat H. Characterization of the RNA-dependent RNA polymerase of tobacco leaves[J]. J Biol Chem, 1979, 254: 149 - 154.

[21] Jean M. Interfering with gene expression[J]. Science, 2000, 288:

1370 - 1372.

[22] Kennerdell JR, Carthew RW. Heritable gene silencing in *Drosophila* using double-stranded RNA[J]. Nat Biotechnol, 2000, 18: 896 - 898.

[23] Tavernarakis N, Wang SL, Dorovkov M, et al. Heritable and inducible genetic interference by double-stranded RNA encoded by transgenes [J]. Nat Genet, 2000, 24: 180 - 183.

[24] Morris JC, Wang Z, Drew ME, et al. Glycolysis modulates trypanosome glycoprotein expression as revealed by an RNAi library [J]. EMBO J, 2002, 21: 4429 - 4438.

[25] Radhamani A, Rajendra M, Xin G, et al. A calmodulin-related protein that suppresses posttranscriptional gene silencing in plants[J]. Science, 2000, 290: 142 - 144.

[26] Silhavy D, Molnar A, Lucioli A, et al. A viral protein suppresses RNA silencing and binds silencing-generated, 21- to 25- nucleotide double-stranded RNAs[J]. EMBO J, 2002, 21: 3070 - 3080.

[27] Kiehl TR, Shibata H, Pulst SM. The ortholog of human ataxin-2 is essential for early embryonic patterning in *Caenorhabditis elegans* [J]. J Mol Neurosci, 2000, 15: 231 - 241.

[28] Dzitoyeva S, Dimitrijevic N, Manev H. Intra-abdominal injection of double-stranded RNA into anesthetized adult *Drosophila* triggers RNA interference in the central nervous system[J]. Mol Psychiatry, 2001, 6: 665 - 670.

[29] Kamath RS, Martinez-Campos M, Zipperlen P, et al. Effectiveness of specific RNA-mediated interference through ingested double-stranded RNA in *Caenorhabditis elegans* [J]. Genome Biol, 2001, 2: research 0002.

[30] Maeda I, Kohara Y, Yamamoto M, et al. Large-scale analysis of gene function in *Caenorhabditis elegans* by high-throughput RNAi [J]. Curr Biol, 2001, 11: 171.

(收稿日期: 2002-11-12 编辑: 庄兆农)

文章编号: 1000-7423(2002)-06-0367-01

【病例报告】

红斑狼疮性肾炎合并粪类圆线虫感染一例

盛颖萍 邓延俊

中图分类号: R383.1

文献标识码: D

患者男性, 33岁, 农民。1997年9月因四肢关节疼痛住院治疗, 诊断为“红斑狼疮性肾炎”。给予抗凝及抑制免疫等治疗, 症状缓解后出院。此后患者坚持口服“强的松”。2001年9月17日因暴晒后出现头晕, 伴轻度腹泻和持续性胀痛, 四肢乏力, 解暗红色血便而再次就诊。

查体: 贫血貌, 脐周轻压痛, 肠鸣音亢进。化验检查: 血红蛋白 67 g/L, RBC $2.08 \times 10^{12}/L$, 免疫学检查: IgG < 3.3, IgA 0.97 g/L, IgM < 0.08 g/L, C3 0.66 g/L, C4 0.23 g/L; 粪便涂片, 镜检见一虫体呈S形, 运动活泼, 长 0.25 mm, 头端钝圆, 尾部稍尖, 未见分叉, 口腔短浅, 食道前后膨大呈双球型, 长度约占虫体 1/3, 生殖原基大而显著, 位于虫体 1/2 稍后处, 经鉴

定为粪类圆线虫 (*Strongyloides stercoralis*) 杆状蚴。

讨论: 粪类圆线虫致病作用与人体机体免疫功能状态密切相关。当机体免疫功能正常时, 一般无临床症状和体征; 一旦机体营养、抵抗力低下或长期使用激素等抑制免疫制剂时, 寄生于肠道的粪类圆线虫可大量繁殖, 不但引起腹痛、腹泻、腹胀、血便等严重的消化道症状, 其幼虫还可进入脑、肝、肺、肾等脏器而危及生命。本例患者因患有红斑狼疮性肾炎而长期服用“强的松”, 机体免疫力降低, 导致粪类圆线虫在肠道引起病变。患者曾用肠虫清治疗 3 d, 大便恢复正常, 后又复发, 再用肠虫清治疗 1 wk, 但 7 d 后又复发。以后未再跟踪调查。

粪类圆线虫病主要分布在热带和亚热带地区, 我国在长江流域及其以南各省、市、自治区均有该病的报道。

作者单位: 广州军区第一五七中心医院检验科, 广州 510510

(收稿日期: 2002-03-06 编辑: 庄兆农)