

STUDIES ON IMMUNOPROTECTION OF MONOCLONAL ANTIBODIES AGAINST *CRYPTOSPORIDIUM PARVUM*

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ABSTRACT

AM: To explore the immune protection of the monoclonal antibody (McAb) against *Cryptosporidium parvum*. **METHODS:** On the basis of Madin-Darby canine kidney (MDCK) cell culture, the immunoprotection of McAb against *C. parvum* was screened by means of neutralization test *in vitro*, and verified by rat model and transmission electron microscopy of infected MDCK cells. **RESULTS:** The number of *C. parvum* sporozoites recovered on the surface of rat intestinal epithelial cells and the mean output of oocyst were significantly reduced by McAb Z3D2 ($P < 0.001$, $P < 0.05$). The decreased *Cryptosporidium* at each development phase within infected MDCK cells and less damage of cell ultrastructure caused by *Cryptosporidium* were found in Z3D2 treated group. **CONCLUSION:** McAb Z3D2 possesses highly effective protection against *C. parvum*.

Key words: *Cryptosporidium parvum*, Madin-Darby canine kidney cells, McAb, immunoprotection

甘露醇导泻对南瓜子和槟榔驱牛带绦虫的效果观察

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1988-1998年,我院采用南瓜子和槟榔治疗38例牛带绦虫病患者,并分别用硫酸镁和甘露醇两种方法导泻,结果表明用甘露醇效果较好。

方法

来院就诊患者,自诉有扁形虫体节片自大便排出或自肛门逸出者作为治疗对象。硫酸镁组:治疗当天上午空腹服南瓜子80g,2h后服80g槟榔煎剂约200ml,再过0.5h服25%硫酸镁溶液100ml。甘露醇组:南瓜子和槟榔用法相同,服后0.5h再服20%甘露醇250ml,1h后再服5%葡萄糖生理盐水1000ml。排出虫体后常规化验检查,确认虫体及头节是否完整排出。

结果与讨论

硫酸镁组18例,驱出完整虫体8例(44.4%),其中带头节3例,最长排虫时间10h,最短4h,平均排虫时间7h。甘露醇组20例,驱出完整虫体16例(80%),其中带头节11例,最长排虫时间4h,最短1.5h,平均排虫时间2.1h。甘露醇组驱虫率与硫酸镁组驱虫率比较,其差异具有显著性意义($P < 0.05$)。甘露醇组的平均排虫时间与硫酸镁组的平均排虫时间比较,其差异具有非常显著性意义($P < 0.01$)。

采用南瓜子和槟榔驱牛带绦虫早有报道^[1]。本文采用甘露醇导泻驱牛带绦虫与硫酸镁导泻相比较,优点是:排

虫时间缩短;排虫率高。本文用甘露醇导泻平均排虫时间2.1h,最长4h。张文忠等^[2]报道用硫酸镁导泻驱绦虫平均排虫时间7.0h。甘耀成等^[3]报道用硫酸镁导泻驱牛带绦虫平均排虫时间3h,最长8h。甘露醇目前已被广泛用于结肠镜检查前清洁肠道,而用于驱绦虫未见报道。20%甘露醇为过饱和溶液,口服后不被肠道吸收,由于服甘露醇后又加服1000ml葡萄糖生理盐水,使肠腔内保持大量溶液,刺激肠蠕动加快,从而使瘫痪麻痹后的绦虫随大量肠液一同排出,缩短了排虫时间。25%硫酸镁同样为过饱和溶液,但渗透压较20%甘露醇低,并且服硫酸镁后不加服葡萄糖生理盐水,使肠腔内液体量相对不足,刺激肠蠕动不强烈,从而使排虫时间延长,影响了驱虫效果。

参 考 文 献

- 冯兰洲 用南瓜子与槟榔合并治疗绦虫之研究 中华医学杂志 1956; 42: 138
- 张文忠,路应连,田庆云,等 带绦虫病150例的治疗 寄生虫学与寄生虫病杂志 1985; 3: 271
- 甘耀成,赖彦雨,秦秋生,等 南瓜子和槟榔治疗牛带绦虫病的效果观察 中国寄生虫学与寄生虫病杂志 1992; 10: 238

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