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实验研究

云南省恶性疟原虫对氯喹、氨酚喹、哌喹、甲氟喹、奎宁敏感性的体外测定

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摘要

目的：了解云南省恶性疟原虫对氯喹、氨酚喹、哌喹、甲氟喹及奎宁的敏感性。方法：采用Ｒｉｅｃｋｍａｎｎ体外微量法测定采自云南省瑞丽１１个县、市的恶性疟原虫对以上药物的敏感性。结果：云南省南部、东南部及西部恶性疟原虫对氯喹抗性率分别为９６．７%、７８．９%及９５．７%，ＩＤ５０依次为１２５ｎｍｏｌ／Ｌ、１３６ｎｍｏｌ／Ｌ、及１７６ｎｍｏｌ／Ｌ；对氯酚喹的抗性率分别为１００%、８５．３%及８８．９%，ＩＤ５０依次为５２ｎｍｏｌ／Ｌ、５４ｎｍｏｌ／Ｌ及７２ｎｍｏｌ／Ｌ；对奎宁均为敏感，ＩＤ５０依次为４８０ｎｍｏｌ／Ｌ、３５２ｎｍｏｌ／Ｌ及６０８ｎｍｏｌ／Ｌ。南部及东南部原虫对哌喹的抗性率分别为６８及８８ｎｍｏｌ／Ｌ；结论：云南省恶性疟原虫对４－氨基喹啉类药物普遍产生抗性，其抗性程度来自滇西及其相连的缅甸感染的疟原虫明显高于滇东南；对奎宁及甲氟喹敏感。氯喹、氨酚喹及哌喹目前已不适应于云南恶性疟的治疗

关键词　恶性疟原虫,体外测定,氯喹,氨酚喹,哌喹,甲氟喹,奎宁

分类号

ASSAY OF SENSITIVITY OF PLASMODIUM FALCIPARUM TO CHLOROQUINE,AMODIAQUINE,PIPERAQUINE, MEFLOQUINE AND QUININE IN YUNNAN PROVINCE *

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Abstract

AIM:To determine the sensitivity of P.falciparum to chloroquine,amodiaquine,piperaquine,mefloquine and quinine in Yunnan Province of China in 1992～1995.METHODS:Rieckmann　s in vitro microtechnigue was used. The sensitivity of P.falciparum was tested to the above mentioned antimalarials.RESULTS: The resistance rates of isolates of P.falciparum from the south, southeast and the west part of Yunnan to chloroquine and amodiaquine were 96 7%(29/30),78 9%(30/38),95 7%(22/23) and 100%(30/30),85 3%(29/34),8/9, respectively,with their corresponding ID 50 of 125 nmol/L,136 nmol/L and 176 nmol/L, and 52 nmol/L,64 nmol/L and 72 nmol/L,respectively.All the isolates were sensitive to quinine and their ID 50 were 480 nmol/L ,352 nmol/L,608 nmol/L ,respectively. The resistance rates of P.falciparum from the south part and southeast part of Yunnan to piperaquine were 96 4%(27/29),72 9 (27/37),respectively,their ID 50 were 320 nmol/L and 228nmol/L;all the cases were sensitive to mefloqine,their ID 50 were 68 nmol/L and 88 nmol/L. CONCLUSION: P.falciparum generally produces resistance to chloroquine, amodiaquine and piperaquine in Yunnan Province; the degree of resistance to chloroquine of P.falciparum from the west part of Yunnan were higher than the P.falciparum from the southeast part of Yunnan;all the isolates were sensitive to mefloquine and quinine in this region.

Key words　Plasmodium falciparum　in vitro　microtechnique　chloroquine　amodiaquine　piperaquine　mefloquinine　quinine

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