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Heart injuries due to abdominal gun-shot wound in pigs

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Abstract The morphological and pathophysiological manifestations of the heart after abdominal gun-shot wound created by a model-53 smooth bore gun of 6.35 mm in caliber with 1.03 g steel ball were observed in 15 pigs, which were randomized into 3 groups. Five animals of the first group were killed immediately after wounding and all the animals showed small spotty flat hemorrhages on the endocardium of the left ventricle under gross inspection. Focal or small flat hemorrhages on the myocardium and under the endocardium were found under optical microscopy. Under electron microscopy, myofibrilla gaps were widened and filled with fluid, and mitochondrial swelling or vacuolar degeneration in the myocardium could be seen. 7 animals of the second group were infused and monitored until they were killed 72 hours after wounding. It was found that there were varying degrees of functional disorder of the left veniricle in every animal. The serum level of creatine kinase isozyme MB increased significantly. The 3 pigs of the third group were killed with large andrapid blood-shedding without gun-shot wound and showed no similar pathological changes.

Key words wounds, gunshot; heart injuries; phosphorylase kinase; phosphocreatine; swine

胃癌伴有冷凝集素升高引起配血困难一例

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病理性冷凝集素升高，通常存在于病毒性肺炎或恶性肿瘤患者的血清中。最近，我们遇到1例，现报告如下。

1 病例简介

杜某，男，56岁。因上腹疼痛，解黑便于90年1月22日入本院。入院后体检：体温37.2℃，心率84次/min，呼吸20次/min，血压16/9 kPa。外周血象：WBC 5.2×10^9/L，RBC 3.02×10^{12}/L，Hb79g/L，Ht26.4%，淋巴0.32，单核0.02，中性0.66。胃镜活检病理检查为胃体窦癌，入院后共输血1700ml，此期间盐水、木瓜酶配血无凝集现象，输后亦无不良反应。拟定8月6日手术，术前（8月5日）配血时，出现定血型和交叉配血困难。

2 实验室检查

（1）患者未洗涤红细胞，以及用37℃生理盐水洗涤4次后红细胞在室温（20℃）进行正定型，并用这种自身洗涤后红细胞与自身血清在4℃吸收2h，以及未经吸收血清进行反定型。结果见表1。

（2）患者血清吸收前后主侧配血结果。见表2。

（3）患者红细胞用37℃生理盐水洗涤5次后直接抗人球蛋白试验：阴性。

（4）冷凝集素效价：256。胃癌术后10d复查冷凝集素效价已下降至2。

表1 患者血型鉴定结果

患者红细胞	正定型			患者血清	反定型			
	抗-A	抗-B	抗-A, B		Ac	Bc	Oc	自身c
洗涤前	3+	2+	2+	吸收前	1+	W+	1+	1+
洗涤后	0	3+	2+	吸收后	1+s	0	0	0

（下转134页）

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Classification of cheek defects and choice of repair method: A report of 223 cases

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Abstract Surgery to repair cheek defect has been performed for a long time but no method can be considered as the best and be universally applicable since the shape and size of cheek defect are variable and no reasonable classification is established for cheek defect.

Two hundred and twenty-three cases of cheek defect were collected in a 26-year period from 1964 to 1990. According to the size and degree of the cheek defects, a classification into 5 categories and corresponding 5 repair methods were established. The total success rate war 92.83%. The clinical features of the defects, the indications of operation, and the choice of repair methods for different types of defects were discussed.

It is concluded that our classification of cheek defects into 5 categories is helpful to differentiate the operative indications, to choose the suitable method of repair and to evaluate the therapeutic efficacy.

key words facial injuries/CL; facial injuries/SU; cheek/IN

（上接131页）

表2 患者血清吸收前后主侧配血结果

供者姓名	配血方法			
	盐水法（室温20℃）		木瓜酶法（37℃）	
	吸收前	吸收后	吸收前	吸收后
杨某	1+	0	0	0
曾某	2+	0	0	0
周某	1+	0	0	0
冯某	1+	0	0	0
陈某	1+	0	0	0
自身	3+	0	0	0

3 讨 论

正常人的冷凝集素效价一般在16以下，而且在20℃即不发生凝集作用[1]，高效价冷凝集素综合症一般属继发性，有的继发于淋巴系统的恶性肿瘤或病毒感染等[2]。本例为胃体窦癌，血型为B型，血清中所含冷凝集素能与A、B、O、自身红细胞发生凝集，4℃时效价是256，20℃亦有凝集，干扰血型鉴定和交叉配血。但在37℃时无凝集。将患者红细胞用37℃温盐水洗涤后，能正确定血型，其血清与洗涤后红细胞于4℃吸收2h，配血便不发生凝集。患者术中及术后一共输血900ml，输前血袋均在37℃水浴中加温15min，病人输后无不良反应。术后患者恢复较好，贫血基本纠正。于术后10d复查患者冷凝集素效价已由256下降至2。

本例患者在病重时冷凝集素效价升高，而当癌肿被切除后，病情好转时又下降至正常。其机理尚不清楚，推测可能与疾病有关。

关键词 胃癌；冷凝集素；血型；输血

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