

## **Postoperative immunological function and jaundice**

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### **Postoperative immunological function and jaundice**

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### **Abstract**

The effects of operative trauma and obstructive jaundice on systemic immunity were studied in a rat model, using the delayed-type hypersensitivity response to 2,4-dinitro-1-fluorobenzene as a measure of systemic immune responsiveness. Midline laparotomy caused a significant decrease in the mean(s.e.m.) delayed-type hypersensitivity response 1 week after operation (4.6(1.3) *versus* 19.0(2.2) per cent for controls). The response returned to control levels by 2 weeks (14.6(3.1) per cent). Common bile duct ligation and division resulted in a significantly depressed hypersensitivity response at 2 and 3 weeks (6.8(2.0) and 8.4(1.6) per cent respectively). The expected decrease in the response at 1 week in these animals was not observed (mean(s.e.m.) 12.7(2.7) per cent), suggesting a possible role for the normal liver in the induction of postoperative immune depression. Impaired function of the reticuloendothelial system was induced in non-jaundiced animals by Kupffer cell ablation following intraportal infusion of  $\lambda$ -carrageenan. A similar prevention of postoperative immune hyporesponsiveness was observed (mean(s.e.m.) 10.4(1.0) *versus* 10.4(1.6) per cent for controls). Hepatic Kupffer cells play an important role in the induction of postoperative immune depression

### **Reference**

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