

## 部分切除肝ラットに及ぼす小柴胡湯の影響

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### Effects of Sho-saiko-to on the experimentally induced regenerating liver Part II: On the hepatic cell fissiparity

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**Abstract** In the present paper, the effects of Sho-saiko-to on the hepatic cell fissiparity during hepatic regeneration after partial hepatectomy, the enzymes related to the mitosis, tyrosine aminotransferase (TAT) and thymidinekinase (TK) and amounts of DNA in liver were measured. Sho-saiko-to (1000 mg/kg/day, TSUMURA) was administrated orally 3 weeks before partial hepatectomy and this administration was continued.

Activities of TK and TAT and amounts of DNA in the liver were measured time-coursely 22,28,72 hrs and 8 days after partial hepatectomy. Moreover the relationship between these levels and cell cycle during hepatic regeneration in the investigation was undertaken by flow cytofluorometric analysis. TK activities increased at 22 hrs in the control and Sho-saiko-to groups and the delayed maximum value was observed at 28 hrs after partial hepatectomy in the Sho-saiko-to group. The maximum value of TK activities in the control group was observed at 28 hrs, while the maximum values of these in the Sho-saiko-to group was shown at 72 hrs after partial hepatectomy. DNA content were significantly increased in the Sho-saiko-to group at 72 hrs after as compared with the control group. On the cytofluorometric analysis of hepatic cell cycle during hepatic regeneration, increased S phase at 0 hr and increased G<sub>1</sub> phase at 28,72 hrs and 8 days were observed in the Sho-saiko-to group as compared with the control group.

These results suggest that Sho-saiko-to is involved in prolonging the G<sub>1</sub> phase in the cell cycle, and also increases DNA synthesis in hepatic regeneration after partial hepatectomy.

小柴胡湯は、種々の肝疾患において有用性が高いとされる。しかし、肝障害後の再生に対する作用及び評価は不明である。そこで、肝を部分切除したラットに小柴胡湯を投与した際の肝再生時の細胞増殖に対する影響を、各生化学系指標や細胞周期について検討したところ、本剤非投与群と明らかに異なる改善作用が認められた。

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