the fetal brain. Treatment included the administration of antibiotics to all mothers with confirmed acute infection during pregnancy, with more intensive anti-biotic treatment of those who had infected fetuses and who chose to continue the pregnancy.

We report a prospective study of 746 documented cases of maternal toxoplasma infection, in which the infants were followed for at least three months. Infection was diagnosed antenatally in 39 of 42 fetuses. 24 cases of maternal toxoplasma infection, in which the mothers were treated with spiramycin throughout pregnancy; if fetal infection was demonstrated, pyrimethamine and either sulfadoxine or sulfadiazine were added to the regimen. Of the 15 fetuses with congenital toxoplasmosis who were carried to term, all but 2, who had chorioretinitis, remained clinically well during follow-up.

We conclude that prenatal diagnosis of congenital toxoplasmosis is practical and that prenatal therapy in women who wish to continue their pregnancies reduces the severity of the manifestations of the disease.

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**CARDIOLOGY**

A randomized, controlled trial in patients with acute myocardial infarction

At the University of Michigan, we conducted a randomized, controlled trial in 507 patients who presented during a 15 month period of time with acute myocardial infarction. Of these patients, 179 were classified as uncomplicated, that referring to the absence of heart failure, angina or significant arrhythmias at 72 hours from the point of hospital admission. Of particular note, 303 (60%) of the patients had received reperfusion therapy, consisting of intravenous thrombolytic therapy, or coronary angioplasty, or both of these interventions at the time of diagnosis of evolving myocardial infarction. The most important predictor of uncomplicated status for the overall group of more than 500 patients was successful reperfusion, and more than a third of these patients met the criteria for randomization. Randomization to early discharge could only be performed if the patient was not only uncomplicated but also had a negative exercise test which was performed with accompanying Thallium scintigraphy.

Of the 80 patients who consented to random assignment, 40 were discharged at 3 days and the remaining 40 were discharged at conventional time (8 days). The patients discharged early had a very favora-

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**HEMATOLOGY**

Tumour necrosis factor as growth factor for B-cell malignancies

Tumour necrosis factor induces the lysis of tumour cells in vitro and regression of some tumours in vivo. More recently it has also become clear that TNF can act as a growth factor for certain normal cells, including B and T lymphocytes and fibroblasts. We have now shown that TNF can also act as a growth factor for malignancies derived from at least one of these cell types. Thus, addition of tumour necrosis factor to B chronic lymphocytic leukaemia or hairy cell leukaemia cells prolongs their survival in vitro and induces them to become activated and proliferate. Activation is autocrine in nature since culture with TNF protein induces mRNA for TNF and secretion of fresh protein. Alpha interferon is an effective treatment for patients with hairy cell leukaemia (HCL) and co-culture of HCL cells with alpha interferon blocks TNF mediated survival and proliferation. This effect is mediated by interruption of the TNF generated autocrine loop rather than by any effect on receptor expression. Our observations have two implications. First, other agents that behave like alpha interferon and interrupt TNF autocrine loops may be therapeutically effective and, secondly, that TIF may act as a growth factor for other
