Mersey has changed its policy

EDITOR,-We agree with Helen Ward and John S Yudkin that diabetic retinopathy should not be a contraindication to the use of thrombolysis in myocardial infarction.1 In September 1991 one of us (RCW) expressed concern locally that the practical difficulty of excluding diabetic retinopathy could easily lead to diabetic patients being denied thrombolysis. The need for a rapid decision, often without the benefit of case notes and after opiate analgesia, posed particular problems for the receiving team.

Subsequently, discussion took place in Mersey region among diabetologists, ophthalmologists, and cardiologists in their respective subcommittees of the regional medical committee. It was agreed that diabetic retinopathy should no longer be regarded as a contraindication to thrombolysis for two reasons: firstly, the potential benefits of a lifesaving treatment outweigh the possible harm of a complication that is not life threatening; and, secondly, even if a vitreous haemorrhage does occur the prognosis for vision is relatively good, especially with the widespread availability of vitrectomy.

In October 1993 the Mersey regional thrombolysis policy was modified to state that "proliferative diabetic retinopathy is no longer regarded as an absolute contraindication to thrombolysis." We are unaware of any cases of vitreous haemorrhage in patients with diabetes receiving thrombolysis for myocardial infarction since then.

We are sceptical about Ward and Yudkin's suggestion that patients should have a voice in the decision about whether they should receive thrombolysis. Surely this is already a time of crisis for the patients, when their judgment may be clouded by anxiety and the effect of drugs. They should be spared the further stress of a discussion about a treatment that seems to have such clear overall benefit.

Finally, we are pleased to note that future editions of the British National Formulary will state that caution is required in diabetic retinopathy rather than that the condition is a contraindication. We wonder, however, whether such a caution can

still be justified.		lympno
	RICHARD C WORTH	diabetes
	Consultant physician	
Countess of Chester Hospital,		
Chester CH2 1BQ		Medical C
	IN McGALLIARD	
	Consultant ophthalmologist	3300 Heni
Royal Liverpool University Hospital,	Consultant opilulannologist	Philadelph
Liverpool L7 8XP		
Liverpool L7 8AF		1 Natazuk
	A HARLEY	Chiha
	Consultant cardiologist	diabe
Cardiothoracic Centre,		
Liverpool L14 3PE		309:1

1 Ward H, Yudkin JS. Thrombolysis in patients with diabetes BMJ 1995;310:3-4. (7 January.)

Risk of intraocular haemorrhage remains unknown

EDITOR,-Helen Ward and John S Yudkin conclude that thrombolysis should not be withheld in diabetic patients with retinopathy.1 We have shown that diabetic subjects are less likely to receive this treatment than non-diabetic controls.²

The authors note that there has been only one case report of intraocular bleeding in diabetic patients after thrombolysis (in a patient with treated proliferative retinopathy).3 The condition may, however, be underreported. Furthermore, intraocular bleeding may be rare only because patients with proliferative diabetic retinopathy rarely receive thrombolysis. We retrospectively analysed 507 diabetic patients who had been admitted to our coronary care unit with an acute myocardial infarction during 1 January 1991 to 30 June 1994. Of the 172 who received thrombolytic treatment, only 14 had diabetic retinopathy and

none had proliferative changes. Of the 26 patients with proliferative retinopathy, none received thrombolytic treatment. Intraocular haemorrhage did not occur in patients with or without diabetic retinopathy.

This important issue can be fully addressed only by a prospective case-control study. While thrombolysis is of proved value in diabetic patients, the risk of precipitating intraocular haemorrhage remains unknown. We agree that diabetic retinopathy should not be regarded as an absolute contraindication to thrombolysis, but it may sway the balance against this treatment when the potential benefit is marginal-for example, in those presenting relatively late.

> STEPHEN FAVA Senior registrar IOSEPH AZZOPARDI Consultant physician and diabetologist HUGO AGIUS MUSCAT Director, health information systems unit FREDERICK F FENECH Director of medicine

Department of Medicine, St Luke's Hospital, Guardamangia,

Malta

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Non-insulin dependent diabetes mellitus and non-Hodgkin's lymphoma

Already reported

EDITOR,-The association between non-insulin dependent diabetes mellitus and non-Hodgkin's lymphoma reported by Toshiki Natazuka and colleagues is not necessarily a random observation.1 Colleagues and I found an association between phoid neoplasms, blood dyscrasias, and es mellitus in 1966.23

JEROME I BRODY

Professor of medicine (haematology/oncology)

College of Pennsylvania, rv Avenue

hia, PA 19129, USA

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Other American studies fail to confirm an association

EDITOR,-Toshiki Natazuka and colleagues report an association between non-insulin dependent diabetes mellitus and non-Hodgkin's lymphoma.¹ They suggest that as diabetes mellitus impairs the immune response to infectious agents it might increase the risk of non-Hodgkin's lymphoma, which is associated with immunodeficiency states. By comparing the observed frequency of diabetes in a hospital case series with that expected on the basis of the prevalence of diabetes reported by the Japanese Ministry of Health and Welfare the authors found a threefold excess in extranodal non-Hodgkin's lymphoma. The risk of nodal non-Hodgkin's lymphoma was not significantly increased.

We evaluated this association in data from two case-control studies conducted in the United States.23 Data, including information on diabetes, were collected during interviews with 170 men in Kansas with histologically confirmed non-Hodgkin's lymphoma diagnosed during 1976-82 and 948 population based controls. We observed decreased risks of both nodal (odds ratio=0.5) and extranodal (odds ratio=0.7) non-Hodgkin's lymphoma among those reporting a history of diabetes (table). In a similar case-control study in Iowa and Minnesota of 622 men with histologically confirmed non-Hodgkin's lymphoma during 1980-3 and 1245 population based controls no association between non-Hodgkin's lymphoma and diabetes (odds ratio=0.9) was found.

There are some limitations in these data. Firstly, the questionnaires did not distinguish between insulin dependent and non-insulin dependent diabetes. The subjects were asked merely if a doctor had ever told them that they had diabetes mellitus or "sugar in your urine," and confirmation was not sought from medical records. Given the relative frequency of the different types of diabetes, however, most of the cases of diabetes would probably have been non-insulin dependent, as in the Japanese study. Secondly, nodality in non-Hodgkin's lymphoma was not determined by the pathologist at the time that tissue was reviewed. In Kansas each case was classified as nodal or extranodal by review of the code for the topographical site for the tissue samples submitted for pathological review. Samples from lymph nodes (International Classification of Diseases-Oncology codes 196.0-196.9) were classified as nodal while samples from other locations (for example, 151.9, stomach) were classified as extranodal. In the Iowa and Minnesota study information on nodality was not available.

The trends in incidence⁴ and the prognoses⁵ of extranodal and nodal non-Hodgkin's lymphoma vary. Extranodal lymphoma has been increasing at a greater rate than nodal lymphoma,⁴ and survival after low and intermediate grade lymphoma is more favourable among people with extranodal

Number of people with non-Hodgkin's lymphoma and population based controls with self reported history of diabetes mellitus in studies in Kansas and in Iowa and Minnesota

	Controls		Non-Hodgkin's lymphoma		
		All	Nodal	Extranodal	Nodal status unknown
		Kans	as		
History of diabetes:					
No	869	161	107	52	2
Yes	67	8	5	3	ō
Odds ratio*		0.54	0.20	0.66	-
95% Confidence interval		0·2 to 1·2	0·2 to 1·3	0.2 to 2.3	
		Iowa and M	innesota		
History of diabetes:					
No	1070	544			
Yes	76	33			
Odds ratio*		0.89			
95% Confidence interval		0.6 to 1.4			

*Odds ratio adjusted for age (20-39, 40-59, 60-79, ≥80). History of diabetes was unknown for 12 controls and one person with nodal non-Hodgkin's lymphoma in Kansas and 99 controls and 45 people with non-Hodgkin's lymphoma in Iowa and Minnesota.