Letters to the Editor

CORRESPONDENCE RE: CHIBBAR R, LEUNG K, MCCORMICK S, RITZKALLA K, STRICKLER J, STAGGS R, *ET AL*. BCL-1 GENE REARRANGEMENTS IN MANTLE CELL LYMPHOMA: A COMPREHENSIVE ANALYSIS OF 118 CASES, INCLUDING B-5-FIXED TISSUE, BY POLYMERASE CHAIN REACTION AND SOUTHERN TRANSFER ANALYSIS. MOD PATHOL 1998;11:1089–97

To the Editor: We read with interest the report of Chibbar *et al.* (1) describing the molecular analysis of *bcl-1* rearrangement in mantle cell lymphoma (MCL). These authors demonstrated major translocation cluster rearrangements in 30 to 40% of MCL, as in previous reports, but were unable to show p94PS rearrangement as we and others have previously reported (2–5). They described an apparent *Hin*dIII polymorphism at the p94PS locus but failed to identify rearrangements with *Bam*HI, *Eco*RI, or *Hin*dIII restriction analysis.

Using a 460 bp *Pvu*II-*Sma*I genomic p94PS probe (provided by Dr. Timothy Meeker, University of Kentucky, Lexington), we identified rearrangements on Southern blot in 10 of 53 MCL (19%). Each rearrangement was confirmed on two or more restriction digests other than *Hin*dIII; no case was interpreted as having a p94PS rearrangement based solely on nongermline *Hin*dIII bands (Table 1). Six cases were further verified by rehybridization of *Eco*RI blots with the 2 kb genomic q13–7 translocation breakpoint probe, which lies approximately 4 kb downstream (telomeric) of the p94PS breakpoint (6) (provided by Dr. Dalal Jadayel, Institute of Cancer Research, Sutton, UK). Seven of the 10 p94PS or q13–7 rearrangements showed comigration with a rearranged immunoglobulin heavy chain joining gene band consistent with the t(11;14)(q13;q32). Given that Chibbar *et al.* (1) used *Bam*HI and *Eco*RI digests in their study and that all p94PS rearrangements in our series were present on one or both of these digests, it is unclear why they were unable to detect rearrangements at this locus.

Review of *Hin*dIII-digested DNA from cases of mantle cell and other non-Hodgkin's lymphomas shows an ~2.8 kb p94PS germline band, plus the ~3.8 kb nongermline band described by Chibbar *et al.* in approximately 15% of cases. The nongermline band in virtually all cases was faint relative to the germline band, more consistent with a pseudogene or restriction digest artifact rather than a true polymorphism.

Multiple 11q13 translocation breakpoints have been described in MCL within the approximately 120 kb span centromeric of the CCND1/cyclin D1 gene by fluorescence *in situ* hybridization and Southern blot analysis, as well as additional breakpoints outside this span identified by fluorescence *in situ* hybridization techniques (7, 8). Unfortunately, as noted by Chibbar *et al.* (1), these breakpoints are somewhat scattered at each locus and difficult to identify by polymerase chain reaction with the exception of the tight clustering at the major translocation cluster (11). The 11q13 translocations, including those at p94PS, almost uniformly lead to overexpression of cyclin D1 at both the mRNA and protein levels (9, 10). Such expression can be of diagnostic value in separating MCL from other non-Hodgkin's lymphomas.

TABLE 1. Chromosome 11q13 p94PS and q13-7 Rearrangements in Mantle Cell Lymphoma

Case	p94PS					q13-7 EcoR1
	Bam HI	EcoR1	Hind III	Bcl I	SstI	
89-83	1R[a]	1R[a]	GL	1R	1R[a]	1R[a]
89-84	1R	1R	1R	1R	GL	ND
89-91A	1R[a]	GL	ND	1R	1R[a]	GL
-91B	1R[a]	GL	GL	1R	1R[a]	GL
-91C	1R[a]	GL	GL	1R	1R[a]	GL
90-121	GL	1R[a]	GL	GL	1R[a]	1R[a]
90-122	1R[a]	1R[a]	GL	1R	1R[a]	1R
90-127	1R[a]	GL	1R	GL	1R[a]	1R[a]
92-14	GL	1R	GL	GL	1R	1R
92-106	1R[a]	1R[a]	ND	1R[a]	1R	1R[a]
93-44	1R	1R	1R	1R	GL	1R[a]
R96-36	ND	1R	ND	ND	1R[a]	ND

ND, not done.
[a] Comigration with rearranged Ig J_H band.

Michael E. Williams, M.D.
University of Virginia School of Medicine
Charlottesville, Virginia

Steven H. Swerdlow, M.D.
University of Pittsburgh School of Medicine
Pittsburgh, Pennsylvania

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CORRESPONDENCE RE: GUTMANN EJ. "NO PICTURES FROM SUMMER VACATION": PORTRAYALS OF PATHOLOGISTS IN THE PRINTED MEDIA. MOD PATHOL 1998;11:686–91

To the Editor We read with great interest the article by Gutmann describing the situation that people have little interest in pathologists and their vocation. To estimate public perceptions of pathologists among Japanese lay people, we carried out a questionnaire survey.

We employed the questionnaire in face-to-face interviews in downtown Sapporo, Japan, on the 26th and 27th of October 1997. The questionnaire was designed to be comprehensible and avoid leading questions. Two of the eight items were questions about the respondent's attributes, four were throwaway questions, and two were key questions. We did not mention the purpose of this survey, and it was introduced as "a survey of the public awareness of the early detection of gastric cancer" because we did not wish to bias the responses to the key questions. For the same reason, we did not use the word *pathologist* (*byori-i*, in Japanese), except in the last question.

The 203 respondents all were of Japanese nationality aged 18 years or more. Eighty-nine were male, and 114 were female. All respondents seemed to understand what each question asked. One of the key questions was, "Have you heard of the word *pathologist*?" and it was the last question of the questionnaire. There were 77 (38%) affirmative answers and 126 (62%) negative ones. This proportion was not affected by sex or age group ($P = .825$ and .182, respectively).

The second key question was, "When you are undergoing gastroscopy, the physician may decide to take a small specimen from your stomach for examination under a microscope. Who really carries out the microscopic examination and makes the final diagnosis?" Four answers were prepared, and respondents were asked to choose one of them: (1) the physician performing the gastroscopy, (2) a physician not performing the gastroscopy who has been trained in cancer research, (3) a medical technician trained in microscopic examination, (4) and a medical doctor specially trained in microscopic examination. The last one clearly implied "pathologist." Fifty-five (27%) answered pathologist, and 121 (60%) answered "physicians" (combined physicians A and B; Table 1). The proportion of respondents who chose pathologist decreased with age ($P = .015$) and was not affected by sex or the experience of gastroscopy ($P = .633$ and .404, respectively). Respondents who had heard of the word *pathologist* tended to choose pathologist in this question ($P = .0308$), whereas 45% of them chose physicians.

The present study shows that the public perception of pathologists in Japanese lay people is insufficient. In Japan, the mass screening for gastric cancer by radiography or gastroscopy is performed nationwide. Half of the respondents to our questionnaire had experienced gastroscopy. Nevertheless, the experience of gastroscopy did not cause

TABLE 1. Answers to the Question, "Who Makes the Microscopic Diagnosis?"

	Pathologist	Physician A	Physician B	Technician	No Response	p^a
Sex						
Male	33 (29%)	26 (23%)	42 (37%)	10 (9%)	3 (3%)	
Female	22 (25%)	26 (29%)	27 (30%)	10 (11%)	4 (4%)	0.633
Age group						
<35 y	19 (30%)	11 (17%)	29 (46%)	4 (6%)	0 (0%)	
35–65 y	26 (28%)	23 (25%)	32 (34%)	8 (9%)	4 (4%)	
>65 y	10 (21%)	18 (38%)	8 (17%)	8 (17%)	3 (6%)	0.0146
Gastroscopy						
Experienced	27 (26%)	31 (30%)	30 (29%)	12 (12%)	3 (3%)	
Not experienced	28 (28%)	21 (21%)	39 (39%)	8 (8%)	4 (4%)	0.404
Do you know the word *pathologist*?						
Yes	28 (36%)	15 (19%)	20 (26%)	11 (14%)	3 (4%)	
No	27 (21%)	37 (29%)	49 (39%)	9 (7%)	4 (3%)	0.0308
Total	55 (27%)	52 (26%)	69 (34%)	20 (10%)	7 (10%)	

Physician A, physician performing the gastroscopy; Physician B, physician not performing the gastroscopy but who has been trained in cancer research.

[a] *p* Value for heterogeneity between subgroups.

them to recognize pathologists. The present research did not clarify the reasons that pathologists remain anonymous during cancer diagnosis. It is possible that some lay people do not notice the existence of not only pathologists but also the microscopic examination *per se*.

It was recently reported that microscopic criteria for gastric carcinoma differ between Japanese and Western pathologists (1). Japanese criteria tend to produce a more aggressive diagnosis.

We speculate that the fact that lay people are apathetic about pathologists and their work may make it easier for pathologists to select the aggressive diagnosis in debatable cases.

Tatsuru Ikeda, M.D.,
Masaaki Satoh, M.D., Ph.D.
Michio Mori, M.D.
Department of Clinical Pathology
Sapporo Medical University Hospital
Sapporo, Japan

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