comments on our recent article reporting on a multicenter cohort of 68 patients with solitary fibrous tumors of the pleura (SFTP), who were analyzed for the complete course of the disease in a routine practice setting.[1] We acknowledge that our recurrence rate of 30% in nonmetastatic disease was higher than that previously reported in surgical series, including that by Tapias et al.[2] (14%). We hypothesize this may be related to (1) a more limited enrollment period (12 years from 2000 to 2012, versus 33 years from 1977 to 2010 in the Tapias series) together with (2) a prolonged median follow-up of 13 years and (3) the recruitment of cases from medical oncology services, at an advanced stage of the disease then requiring chemotherapy treatment.[1] We agree that incomplete resection may have contributed to this higher recurrence rate, as five patients—four stage II tumors, one stage III tumor—had R1 resection, and two patients—both stage III—had R2 resection. We believe this reflects routine practice, as other surgical series similarly reported incomplete resection to occur in 7% to 11% of malignant SFTP.[3]

On the basis of their series of 59 patients, Tapias et al. propose a scoring system to predict SFTP recurrences; four of the six variables of this scoring are actually common with that of the England/de Perrot staging, including structure, mitotic activity, cellularity, and presence of necrosis.[2] Of note, Tapias et al. did not applied the de Perrot staging to their cases, whereas they stated that scoring was a superior predictor of recurrence.

Comparing our cohort with this series, scores had the following distribution: 0 in 15% versus 42% patients, 1 in 13% versus 19%, 2 in 28% versus 19%, 3 in 19% versus 12%, 4 in 7% versus 5%, 5 in 9% versus 3%, and 6 points in 9% versus 0%. Scoring, although correlating with the de Perrot stage ($p < 0.001$), was also a significant predictor of recurrence-free survival ($p = 0.007$): 3-year, 5-year, 10-year, and 15-year recurrence-free survival rates were 40%, 31%, 25%, and 25%, respectively, for a score ≥3, and 88%, 70%, 58%, and 58%, respectively, for a score <3. These figures are far lower than that reported in the original series by Tapias et al.—80%, 69%, 23%, and 23% for a score ≥3 and 100% for a score of <3—and in a more recent validation cohort.[5] This reflects the higher aggressiveness of our cases that would be even more appreciated using the proposed 6-class score, which may be even more relevant for advanced malignant cases. Whether these analyses are relevant to drive perioperative management still remains to be determined, especially because the efficacy of adjuvant treatment is limited, as highlighted in our cohort.

Ultimately, such major differences between reported series of TFSPs emphasize the need for multicenter collaboration to develop prospective observational cohorts of consecutive patients, what remains challenging given the wide range of aggressiveness of the disease, the long-term survival of patients, and the multidisciplinary management from initial presentation to recurrent disease.

Olivier Bylicki, MD
Nicolas Girard, MD, PhD
Respiratory Medicine and Thoracic Oncology Service
Hôpital Louis Pradel,
Hospices Civils de Lyon
Lyon, France

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No Increased Risk for Mesothelioma in Relation to Natural-Occurring Asbestos in Southern Nevada

To the Editor:

As cancer epidemiologists, we read the article by Baumann et al.[1] with great interest. We praise Baumann for producing a body of literature on mesothelioma and exposure to natural-occurring asbestos (NOA).[2–4] The recent discovery of NOA in Southern Nevada has raised our interest in the surveillance of mesothelioma in the region.

Unfortunately, in our opinion, the methodology used was inappropriate for the stated aim of the study: "to test that malignant mesothelioma is increased in Southern Nevada in a pattern consistent with environmental exposure." The proper indicator of risk in a population or a subpopulation is the incidence rate (gender specific, age adjusted, and/or age specific). Proportions or sex ratios restricted to mesothelioma deaths are not appropriate measures of risk because they do not account for the underlying population pool (and the concept of risk in epidemiology) from which the cases arise. For instance, a male to female sex ratio can be elevated just by virtue of a

Address for correspondence: Paulo S. Pinheiro, MD, MSc, PhD, School of Community Health Sciences, University of Nevada, Las Vegas, Box 453063, 4505 S. Maryland Pkwy, Las Vegas, NV 89154-3063. E-mail: paulo.pinheiro@unlv.edu

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low number of male cases rather than an actual increased absolute number among females. Likewise, a high proportion of cases in younger populations may be the result of lower numbers in the older groups because of low incidence, or simply because of a smaller population pool. We reviewed the references provided, and there is no scientific consensus on the use of the sex ratio and the proportion under 55 years of age as indicators of environmental (nonoccupational) exposure to asbestos or NOA.

The authors presented proportions, ratios, incidence rates for 2006–2010, and then mortality rates for 1999–2010. Multiple comparisons follow but with an inconsistent lists of states, first with states of low incidence (45 states, excluding 5 states classified as high incidence states), followed by mortality comparisons with 35 states without asbestos industry. Only one state, Alaska, has both high incidence and asbestos industry. With this much information from various sources, it is difficult to fully understand the occurrence of mesothelioma in Nevada and in its southern counties (Clark and Nye).

These proportions, ratios, and inconsistent comparisons are used as evidence, which is then summarized as "elevated rates," thus conveying the notion of an increased risk of mesothelioma for Southern Nevada. Simultaneously, the text points to an ecological link between mesothelioma and increased environmental exposure in our region. In referring to a past study, causality (a strong concept epidemiologists reserve to studies using individual level data) is mentioned between NOA and mesothelioma, when the evidence provided is mostly ecological.[2] Also, the presented numbers do not add up correctly: a total of 31,526 deaths in the 50 U.S. states is mentioned, but in Table 2, the sum of 49 other states and Clark and Nye counties, 31,545, already exceeds the total sum.

Mesothelioma is rare, and the low numbers with high variability across geographic region make the statistical analysis difficult. Because of its very poor prognosis, the incidence and mortality rates of mesothelioma are very similar. Using the in-state mortality files (192 deaths during 1999–2010) and the Centers for Disease Control and Prevention wonder data[5] (29,663 deaths), we measured the risk for mesothelioma, reproducing the categories Baumann refers as markers for NOA exposure (Table 1).

The risk for mesothelioma is not increased in Southern Nevada for any category analyzed. The low sex ratio found by Baumann results from a significantly lower than average mortality among males in Southern Nevada and not from an increased mortality or risk for females. Likewise, the risk is not significantly raised for those aged 0 to 54 years old. Moreover, the choice of 55 years as a cutoff to characterize younger cases is questionable. For the immediately younger (0–49) and older age groups (0–59), the risk in Nevada is fundamentally the same as in the United States. In conclusion, we have strong reservations over the evidence presented on the risk of mesothelioma in Nevada in this article and suggest the use of improved methodology to assess the relationship between NOA exposure and mesothelioma.

Paulo S. Pinheiro, MD, MSc, PhD
Hongbin Jin, MPH, RN
Epidemiology and Biostatistics
School of Community Health Sciences
University of Nevada Las Vegas
Las Vegas, Nevada

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TABLE 1. Mortality Rates for Malignant Mesothelioma 1999–2010 with Corresponding 95% Confidence Intervals

	All Age Groups Combined		Younger Age Groups, Sexes Combined		
	Male	Female	0–49 Years Old	0–54 Years Old	0–59 Years Old
US-49[a]	1.60 (1.58–1.62)	0.29 (0.28–0.29)	0.04 (0.04–0.04)	0.07 (0.06–0.07)	0.11 (0.11–0.11)
US-34[b]	1.57 (1.55–1.60)	0.29 (0.28–0.30)	0.04 (0.03–0.04)	0.07 (0.06–0.07)	0.11 (0.11–0.11)
Nevada	1.34 (1.12–1.59)	0.30 (0.22–0.40)	0.04 (0.02–0.08)	0.09 (0.06–0.14)	0.12 (0.08–0.17)
Southern Nevada[c]	1.16 (0.92–1.43)	0.33 (0.23–0.47)	0.05 (0.02–0.10)	0.09 (0.05–0.15)	0.11 (0.07–0.18)
Other Nevada	1.78 (1.33–2.33)	0.21 (0.10–0.41)	0.02 (0.00–0.10)	0.09 (0.03–0.19)	0.14 (0.07–0.26)

Rates are per 100,000 and age adjusted for the 2000 U.S. standard population.
[a]U.S. states except Nevada.
[b]U.S. states excluding Nevada and 15 states with commercial asbestos production.
[c]Clark and Nye counties.

