tification of APUD-derived cells easier.[4] Thus, when an undifferentiated carcinoma is seen, use of EM and IHC should help delineate Merkel's cell carcinoma, a diagnosis which, with these techniques, will become less rare.

Indeed, Merkel's cell carcinoma is not as uncommon as Karam et al suggest. In 1988, Hitchcock et al[5] reviewed and analyzed more than 400 cases. They noted that half were located in the head and neck and one third on the extremities. The mean age of the patients was 68 years. The incidence of tumors was nearly equal between the sexes, but women had significantly better survival rates; age made no difference. An aggressive tumor, Merkel's cell carcinoma recurred locally in 40%, spread to regional lymphatics in 55%, and metastasized widely to liver, bone, brain, lung, and skin in 36%.[5] Survival was 72% at 2 years, but in patients with distant metastases, nearly three quarters died within 2 years.[5] Although surgery was the primary treatment, the tumors are radiosensitive; chemotherapy was generally used when other methods failed.[5] The study of Hitchcock and associates shows that Merkel's cell carcinoma is a locally aggressive tumor with a propensity to metastasize, and early diagnosis, aided by the use of both EM and IHC, is the best means to secure adequate and curative therapy.

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References

1. Karam F, Nussey J, Nawab R: Trabecular or Merkel's cell carcinoma. *South Med J* 83:1354-1356, 1990
2. Kidd RL, Krawczyk WS, Wilgram GF: The Merkel cell in human epidermis: its differentiation from other dendritic cells. *Arch Dermatol Forsch* 241:374-384, 1971
3. Gould VE, Moll R, Moll I, et al: Neuroendocrine (Merkel) cells of the skin: hyperplasias, dysplasias, and neoplasms. *Lab Invest* 52:334-353, 1985
4. Moll R, Osborn M, Hartschuh W, et al: Variability of expression and arrangement of cytokeratin and neurofilaments in cutaneous neuroendocrine carcinomas (Merkel cell tumors): immunocytochemical analysis of 12 cases. *Ultrastruct Pathol* 10:473-495, 1986
5. Hitchcock CL, Bland KI, Lamey RG, et al: Neuroendocrine (Merkel cell) carcinoma of the skin: its natural history, diagnosis, and treatment. *Ann Surg* 207:201-207, 1988

Reply

In response to Dr. Weil's letter quoting Hitchcock and colleagues in the *Annals of Surgery,* I have two comments.

First, he does credit us with the mention of the discriminating ability of immunohistochemistry (IHC) and electron microscopy (EM) as a means of getting a correct diagnosis, but it was not within the scope of our paper (a clinical report) to detail these tests.

Second, he mentions that "Indeed, Merkel's cell carcinoma is not as uncommon as Karam et al suggest," noting the review of 400 cases in the world literature; yet in their summary, Hitchcock et al stated, "Here are five additional cases of neuroendocrine (Merkel cell) carcinoma and the literature for this *rare* neoplasm is comprehensively reviewed."

I believe that 400 cases reported in the world literature is still considered a rare disease.

I do find the review of Hitchcock et al comprehensive, very interesting, and worth reading, and I thank Dr. Weil for his kind comments.

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An Excess of Information

To the Editor: Martin H. Fischer (1879–1962) once said, "Knowledge is a process of piling up facts; wisdom lies in their simplification." This piling up of facts without simplification may be a partial reason for the high diagnostic failure rate by the house staff in Sapira's study.[1]

There currently exists a situation of information overload without simplification in the handling of laboratory data. Most journals and textbooks report laboratory data in *le Système International d'Unités* (SI units). There is a good reason to do so: biologic components react in vivo not in mass units (such as milligrams per liter), but in molar units (millimoles per liter).[2] Laboratories in the United States amazingly enough remain in the dark ages and report data only in conventional units. Thus the medical student of today faces an *unnecessary* information overload. In biochemistry and physiology we learn to think in terms of SI units. The scientific literature we read is in SI units. Why then must we deal with conventional units when caring for patients? This conventional/SI dichotomy has the medical student accumulate a wealth of knowledge (by necessity we "pile up the facts" of both conventional and SI units). Unfortunately, the price is needless mental clutter. The simplicity of wisdom suggests an immediate and complete conversion to SI units.

Another way to simplify the laboratory data is to include in reports the number of standard deviations (SD) a patient value (PV) falls from the mean (X). This method would give the clinician the PV, the reference range (RR), and a deviation factor. For example, a fasting plasma glucose of 3.5 mmol/L would be reported as 3.5 mmol/L [3.9 – 6.1 mmol/L, – 2.7 SD]. Since RR is the limits of X + 2 SD, the formula for X is [3.9 + (6.1 – 3.9) / 2]. The SD is then [(6.1 – X) / 2]. The deviation factor of –2.7 comes from [(X – PV) / SD]. Thus the current information on laboratory reports—PV and RR—whether conventional or SI would merge at a common deviation factor. Such a deviation factor also would provide clinicians a quick and accurate way to identify abnormalities when scanning laboratory data.

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References

1. Sapira JD: Contemporary use of the disease concept: III. A pedantic failure to change behavior regarding the problem of anemia. *South Med J* 84:242-243, 1991
2. Young DS: Implementation of SI units for clinical laboratory data. *Ann Intern Med* 106:114-129, 1987

Reply

Mr. Heston's letter raises several important subjects worthy of explication. First, there is the controversy between System International (SI) units and conventional units. His letter well rehearses the reasons for converting to SI units, which reasons I consider correct but not exhaustive. Not only are they not exhaustive, but also they are insufficient as shown by (a) the tenacity of the conventional units usage, and (b) letters to the editor of journals which use only the SI units, rendering papers incomprehensible to older readers. I do not accept his statement that biologic components react not in mass units, but in molar units, any more than I would accept the statement that they react in English and not in French. The man-