

Parathyroidectomy in ESRD

To the Editor: Kestenbaum et al have confirmed that parathyroidectomy rates in the United States have fallen since 1990, and, in an accompanying editorial, a plea is made for improved management of secondary hyperparathyroidism [1, 2]. We agree completely that use of parathyroidectomy has declined in the United States, and we reported this in 2001 [3]. Similar findings were reported from Japan [4].

But use of parathyroidectomy rates is an imperfect yardstick of the management of secondary hyperparathyroidism. Use of parathyroidectomy is a low-frequency occurrence, affecting less than one dialysis patient per 100 per year. It is possible that there is a small but ineradicable fraction of end-stage renal disease (ESRD) patients who will respond poorly to medical management of secondary hyperparathyroidism, and will thus ultimately require what amounts to parathyroid debulking. Just because parathyroidectomies are still needed in 2003 does not mean that we are doing a bad job with our current management of secondary hyperparathyroidism. Recent data suggest that the time from first ESRD to parathyroidectomy has lengthened significantly over the past decade, and is now a median of six years [abstract; Cohen EP, *J Am Soc Nephrol* 14:684a, 2003]. It is possible that indications for parathyroidectomy have gradually and linearly changed over this time. But that seems unlikely. Thus, current medical management—better dialysis, better phosphate binders, use of vitamin D analogs—appears to have had an impact. Use of this surgery, and time-to-need-for-surgery, has evolved in a favorable direction. New agents, such as calcimimetics, may improve more subtle aspects of secondary hyperparathyroidism, but may not materially affect parathyroidectomy rates.

ERIC P. COHEN and JOHN E. MOULDER
Milwaukee, Wisconsin

Correspondence to Eric P. Cohen, Department of Medicine, Nephrology Division, Medical College of Wisconsin, Milwaukee, WI 53226.
E-mail: ecohen@mcw.edu

REFERENCES

1. KESTENBAUM B, SELIGER SL, GILLEN DL, et al: Parathyroidectomy rates among United States dialysis patients: 1990–1999. *Kidney Int* 65:282–288, 2004
2. GOODMAN WG: Medical control of secondary hyperparathyroidism:

We're not there yet. *Kidney Int* 65:335–336, 2004

3. COHEN EP, MOULDER JE: Parathyroidectomy in chronic renal failure: Has medical care reduced the need for surgery? *Nephron* 89:271–273, 2001
4. TOKUYAMA K, ISEKI K, YOSHI S, et al: An epidemiologic analysis of parathyroidectomy in chronic dialysis patients. The Okinawa dialysis study group. *Jpn J Nephrol* 38:309–313, 1996

Reply from the Authors

Cohen and Moulder [1] have previously reported a decline in the prevalence of parathyroidectomy (PTX) in the United States. Our study examined the adjusted PTX incidence rate, accounting for changes in characteristics of the dialysis population. During the years 1990 to 1999, there were significant increases in age, and in the proportion of diabetic patients, among the U.S. ESRD population. Because increasing age and diabetes suppress parathyroid hormone levels, and likely result in a patient population that is less fit for elective surgery, our concern was that PTX rates might be declining as a result of changes in patient characteristics. Our analyses showed that changes in patient characteristics accounted for only part of the decline in PTX rates, the remainder of the decline being presumably from changes in patient care. Of note, there was also some suggestion that the rate of PTX has begun to increase again. This, in conjunction with the data from Cohen et al, suggests that improved management of hyperparathyroidism (HPT) with better phosphate binders and the use of vitamin D analogs may have simply altered the rate of progression of disease.

We agree that PTX rates provide only a composite of the degree of control of hyperparathyroidism because it represents only those persons with the most severe disease. It is quite possible that we have made significant improvements in care for those with more moderate HPT. Further, it is unclear whether reduction in the PTX rate is a positive or negative outcome. If disease management has not been improved, but PTX is occurring less frequently, patient outcomes may be worse. However, given the lack of available data comparing patient outcomes after PTX to those of similar patients not undergoing surgery, conclusions are difficult to make.

BRYAN KESTENBAUM and CATHERINE STEHMAN-BREEN
Seattle, Washington, and Thousand Oaks, California

Correspondence to Bryan Kestenbaum, Department of Nephrology, University of Washington, Seattle, WA 98195.
E-mail: epware@earthlink.net

REFERENCE

1. COHEN EP, MOULDER JE: Parathyroidectomy in chronic renal failure: Has medical care reduced the need for surgery?. *Nephron* 89:271–273, 2001