

# Be Aware of Low Bone Density in the Young

BY KERRI WACHTER  
Senior Writer

NEW ORLEANS — Bone health experts offered their share of helpful clinical insights at the annual meeting of the International Society for Clinical Densitometry.

Here are some of the highlights:

## Low Bone Density in the Young

Low bone density is not uncommon in young adults but—at least in the short-term—does not carry with it the same relative risk of fracture as in older individuals unless secondary causes of metabolic bone disease are identified, said Andrew J. Laster, M.D., who is a rheumatologist practicing in North Carolina.

Secondary causes of low BMD include endocrinopathies (hypercalciuria, hypogonadism, hyperparathyroidism, and Cushing's syndrome), some GI disorders (gastrectomy, inflammatory bowel disease, celiac disease, intestinal bypass surgery, primary biliary cirrhosis, and pancreatic insufficiency), genetic disorders (Ehlers-Danlos syndrome, Marfan syndrome, and homocystinuria), and eating disorders (anorexia nervosa, bulimia nervosa, and female athlete triad).

Ask patients about long-term glucocor-

ticoids, suppressive doses of thyroid hormone, phenytoin, phenobarbital, GnRH agonists, aromatase inhibitors, cyclosporine, aluminum-containing antacids, long-term heparin, and vitamin A supplementation.

The diagnosis of osteoporosis can be made in premenopausal women if they have low BMD as well as secondary causes of the disorder.

## Assessing Fracture Risk Factors

Before experts declare the benefits of addressing a particular risk factor in an individual patient, they should stop and ask some key questions, according to John Kanis, M.D., who is the director of the World Health Organization's Collaborating Centre for Metabolic Bone Diseases in Sheffield, England.

Is the risk factor internationally validated? "We need to know that something works as well in Japan as it does in the United States,"

Dr. Kanis commented.

Is it feasible for a primary care physician to assess the risk factor? Low calcium intake is a risk factor for hip fracture, but measuring calcium intake is difficult to do.

Is the risk factor intuitive? "Dementia is a very strong risk factor for hip fracture, but it's going to be rather difficult

to persuade a primary care physician that if he has a patient with dementia, the first thing he should be thinking about is osteoporosis.

A family history is much more intuitive in medical care," Dr. Kanis commented at the meeting.

## When to Do Vertebral Assessments

Paul Miller, M.D., who is the director of the Colorado Center for Bone Research in Lakewood, recommended that physicians perform a vertebral assessment in patients with any of the following characteristics:

- ▶ Loss of 1.5 inches or more in height.
- ▶ Back pain in patients coming to your office for osteoporosis assessment.
- ▶ Known vertebral deformities or hip fractures.
- ▶ Kyphosis.
- ▶ Chronic glucocorticoid therapy.
- ▶ Age older than 60 years.

## Turnover Markers

There are a number of potential advantages to using bone turnover markers, according to Douglas C. Bauer, M.D., of the University of California, San Francisco.

These measurements provide a more dynamic assessment of skeletal metabolism than BMD. More importantly, bone turnover markers rapidly reflect changes as a result of therapy, providing a better means of assessing treatment efficacy. The availability of automated assays for a number of the markers allows

clinicians to inexpensively assess bone health.

The most significant disadvantage to using clinical markers is that there is typically very high day-to-day variability in the results. Clinical markers can vary by the time of collection. "Right now it's suggested that they be collected in the morning, before 9 o'clock," said Dr. Bauer.

In addition, just how much variability there is between laboratories performing these assays has yet to be studied. There are no standardized cut points available for bone turnover markers.

## Timing

For a patient who has been on an antiresorptive therapy and who will be taking teriparatide, there is no need for a break between the two therapies, said John Bilezikian, M.D., professor of medicine and pharmacology at Columbia University, New York.

"I don't see any reason for a drug holiday, even in the case of depressed bone turnover, because eventually the effects of parathyroid hormone will overcome [depressed bone turnover] . . . in short order," he said.

For patients who will be starting therapy for low BMD, Dr. Bilezikian recommends monotherapy with either an antiresorptive or with parathyroid hormone.

In addition, "Most of us would agree that after teriparatide, we should follow up with an antiresorptive," Dr. Bilezikian said at the meeting. ■

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# Partial-Breast Irradiation Can Provide Good Cosmetic Results

BY PATRICE WENDLING  
Chicago Bureau

ATLANTA — When partial-breast irradiation was delivered with the MammoSite balloon catheter system after lumpectomy, the majority of patients showed good to excellent cosmetic results and had no local recurrences of cancer at 2 years, according to the first analysis of MammoSite Registry Trial data, presented at a symposium that was sponsored by the Society of Surgical Oncology.

Partial-breast irradiation (PBI) offers women the convenience of shortening their course of radiation treatment from 6 weeks for standard whole-breast radiation to a week. It also has the potential to substantially improve the documented underutilization of breast-conserving therapy in the United States, Peter D. Beitsch, M.D., told this newspaper.

The trial enrolled 1,419 women to receive PBI instead of a mastectomy.

The best cosmetic results were seen in women with larger breasts or with at least 7 mm of breast tissue between the skin and the balloon catheter, which is inflated inside the lumpectomy cavity. The average skin spacing was 10 mm.

Less than 10% of the women who enrolled (139) could not be treated because of a lack of skin spacing, balloon failure, lack of cavity conformity, or positive nodes. PBI is contraindicated in patients who are very young or who are node positive.

Of the 1,280 women treated, only 1% had positive margins and 91% had tumor margins greater than 2 mm. About 80% of the women had T1 tumors, 6.3% had T2 tumors, and 13.3% had ductal carcinoma in situ.

Only 3% of the patients had positive lymph nodes. Two percent of patients had breast size A, compared with 20% B, 33% C, 23% D, and 22% not reported.

About 98% of the women received a radiation dose of 34 Gy in 10 fractions over 5 days, Dr. Beitsch said during the meeting.

Analysis of the results showed that good to excellent cosmesis was achieved in 1,030 (95%) of 1,084 women overall, 229 (92%) of 248 patients at 1 year, and 18 (94.7%) of 19 patients at 2 years. Fair to poor cosmesis was reported in 54 (5%) women overall, 19 (7.7%) of 248 patients at 1 year, and 1 (5.3%) of 19 patients at 2 years.

Good to excellent cosmetic results were reported in 89% of women when the skin spacing was 7 mm or more.

Surgeons can improve skin spacing by proper preoperative planning to determine who is a candidate for the therapy prior to surgery and performing the lumpectomy accordingly, Dr. Beitsch said during an interview with this newspaper.

"The surgeon [also] must make sure the margins of the lumpectomy are free of tumor, since partial breast radiation does not make up for inferior surgery," added Dr. Beitsch, who is the director of the Dallas Surgical Group.

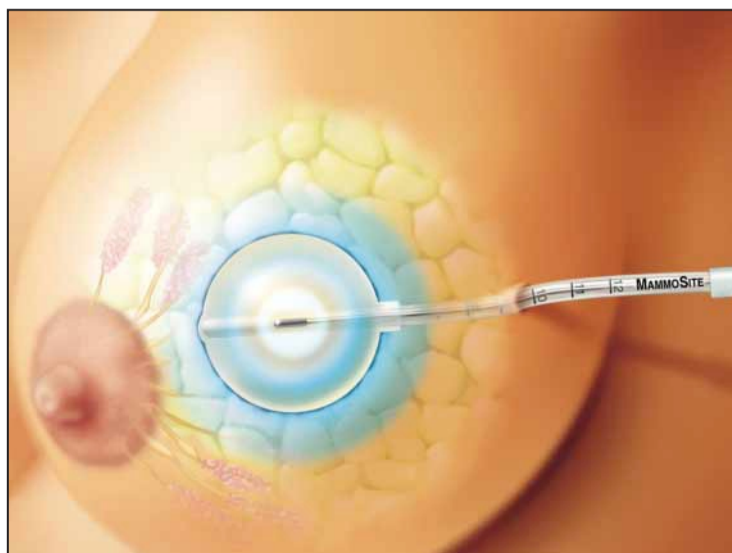
Data available on 1,140 women showed that there were 92 infections (8%), of which 60 were device related.

A total of 28% of patients reported radiation dermatitis, 20% had subcutaneous tissue changes, and 9% had late radiation skin changes.

The question of long-term radiation-related complications remains to be addressed, Dr. Beitsch said, adding that the 5-day radiation treatment is radiobiologically equivalent to about 54 Gy of whole-breast radiation.

There were no local recurrences, and one death was unrelated to treatment, Dr. Beitsch said.

No women in the study had augmented breasts. Dr. Beitsch suggested such patients would be better candidates for PBI with multiple catheters due to the inability to obtain enough skin spacing. ■



The MammoSite balloon catheter-based brachytherapy system is designed for inflation inside the lumpectomy cavity.

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