The calcium story – beware promissory pills, injections and any “cures”

Osteoporosis

Little has been established regarding a cure about what is consistently effective against osteoporosis. What is certain, is that osteoporosis, is an invitation to fracture, which in its turn may be crippling or even life threatening. American patients believe in American medicines - which in many cases are justified. But let’s look a little further at the basis for this belief. In general it runs something like this; for any illness there must be a matching and appropriate pill. A pill, a multi-pack, or at worst an injection that can and will cure it.

The Meaning of “Cure”

Doctors never use this term about a condition or illness because, to say the least, it’s misleading. Instead, they speak of ‘treatment’. It’s far more accurate, modest, acceptable, and useful. For instance we can treat diabetes, cardiac conditions, or hormonal imbalances, but we don’t actually ‘cure’ them - that is rid the body of their entity. Note too, doctors who treat cancers always talk in terms of five year ‘survival rates’, never cures.

Cure or complete eradication that many patients continue to believe in, doesn’t lie within the achievement of modern medicine, always remembering that suppression or modification of symptoms is not tantamount to cure. Would you really say modification or time related easing of your symptoms is the same as eradication or cure? And what about recurrence after seeming eradication?

Are we an over medicated society?

Contemporary medical research is backed by multibillions of government and private funds, and has created an oral medication aimed at virtually every human condition. As a result, thousands of bottles of pills and tablets line your drugstore shelves - sometimes ‘over-the-counter,’ sometimes needful of a prescription, holding out implied ‘cures’. Really? Without any guarantee of their effectiveness. But what you can be sure of, is that whatever the effect, these costs must be passed along to you. And it’s true what we’ve gotten for our money is not entirely to be sneezed at (pun intended). We’ve gotten treatment that can be taken by mouth that can aid, modify or lessen many of our symptoms. And, there are fortunately a few notable oral medications that effectively forestall illness-whether by mouth or injection. For example, many childhood and epidemic vaccines. I don’t think I’m disclosing anything the intelligent American doesn’t know, yet we continue to consume in enormous amounts, pay for, and believe in ‘oral nostrums’ (pills!).

Is there no cure for what may all us?

Actually there is. Surgery, when successful, approaches “Cure”. Think of what an appendectomy, the successful replacement of hips or knees, cardiovascular procedures and pace makers, or Gall Bladder excision do for us. Everyone knows that surgery carries serious risks. But it is it just as apparent that ALL treatments be they oral, surgical or physical carry risk. The perpetual question is always, is the game worth the candle? Is the potential gain worth the risk- a question as important for the manufacturers of drugs, medical equipment, treating physicians, implants and others as for you, the patient.

Medicine’s responsibility to you

It behooves physicians to insure that the patient is always informed that none of the absolutely legitimate medications with which he proposes ‘to treat’, comes without a price - and that price is side effects; anywhere from annoying to dangerous, damaging or irreversible. No drug or medication is without them. There is one very common, age related and disabling condition that I’d like to focus on. Physicians, nutritionists, researchers and yes drug manufacturers are also seeking effective treatments involving the use of Calcium.

Osteoporosis

Bone loss happens to one degree or another to every post-menopausal woman. The term Osteopenia, is a lessening of Calcium in bone that may lead to bones becoming notably fragile and subject to breakage or fracture. Osteoporosis can be considered the first stage of Osteoporosis. Osteoporosis is an end stage, that permits serious and frequent long bone or spinal fracturing.

Other conditions can produce a hypo-calcemic state - notably hormonal imbalance syndromes or malnutrition, but none appear in the staggering numbers that affect women past the age of 45. To get some perspective of the problem - 60 percent of the population in this country is female. Of these 155.9 millionsouls,40 percent are post-menopausal, that’s about 63 million people give or take a few thousand. This vast population subject to a condition (Osteoporosis) that is totally silent until some form of fracturing occurs. And bones lacking in calcium, not only break with little or no trauma, but from the Orthopedist’s point of view may be hard to handle and hard to heal. I won’t even begin to try to quantify the accompanying pain and persistent disability.

Such a vast patient pool has been a tempting buyer group for oral medications aimed at bulwarking the calcium content in bone, and attempting to bolster bone production -particularly considering our belief in pills. Just a few words about bones and calcium. Bony metabolism is a multi-factorial, complex process. The skeleton is not a fixed structure. Bone is constantly laid down and absorbed throughout our life. Were it not, the bones of the infant would never grow into the bones and stature of an adult.

We know many substances both indigenous to the body and produced normally, in conjunction with other factors such as diet play key roles in maintaining bone. Much of the exact process is far from
fully known. One thing is pretty well established - Calcium is the primary element that gives bones their rigidity. And for maintenance generally requires a daily intake of approximately 1000 to 1500 mg - most of which may be supplied by the normal diet. It also needs the enabler/incorporating role of small amounts of Vitamin D again found in diet, and carefully limited daily vitamin preparations (600-800 I.U.). But here a caution - mega doses of Vitamin D are potentially very harmful to the liver, and therefore should be reported to contribute to retarded growth in infants. These medications (Pills) are primary in day to day bone maintenance.

**Bone loss - to pill or not to pill**

Actually, little has been definitively established about what is consistently effective against osteoporosis. What is certain, is that osteoporosis, is an invitation to fracture, which in turn may be crippling or even life threatening. If a pharmaceutical company were able to say, here is a pill that consistently, surely and safely that will either prevent Osteopenia from occurring or reverse the process once started, who would not simply swallow a plethora of pills and laugh all the way to the tennis court.

Osteoporosis very much like male impotence makes for great attention grabbing advertising. (Not yet bumper stickers, but one never knows) Actually drug companies have proposed something very similar (see many TV commercials). They have made household words of medical terms such as “bisphosphonates” (bone building medications). I wish it could be said - They WORK! without any warnings or RISKS. What it seems to come down to in the medical literature is that these can increase bone density for many patients. But proof that they actually prevent fracturing? No. Not yet.

Still it seems the faith in pills or oral medication is absolutely ingrained in many patients. What can be taken in pill form is the safest, least invasive or disruptive way to go. But is it? In this instance some oral meds for Osteoporosis and Osteopenia can produce side effects of high blood pressure, abnormal blood clotting, kidney stones, fractures of the femur and in rare cases association with tumors of the jaw, among undesirable effects - is this really the safest choice and surest way to go?

Moreover there may be additional problems. It is not established with certainty whether any anti-osteoporosis drugs taken consistently actually prevents age related bone fragility and can be safely taken over the long term.

Estrogen which is known to help build bone is also known to encourage the growth of some breast cancer cells. And thus is not currently considered entirely safe as a drug of first choice. However the potential side effects on the patient that may happen is only too common and too well documented. So we’re back where we started only this time we know that simply popping a pill, no matter how carefully done may not solve the problem.

**Back to safe basics**

So I say no to pill popping - questionable, oral preparations. But have I a better treatment to offer? I think so. One that may prove as effective as present medications and infinitely safer. It’s self administered, and if out of fashion, is none the less a truly protective approach to the fall/fracture problem. As an orthopedic surgeon, I can tell you that these are not miracle cures but they work as well as anything currently available and avoid dangerous side effects.

The first stick with the established and recommended daily dose of Calcium and vitamin D. One study recently concluded that nitroglycerin ointment, applied nightly to the lower spine, appeared to result in some bone mineral density to that area when accompanied by this standard daily intake of Calcium and Vitamin D. This ointment doesn’t appear to produce side effects.

**The second-Add a daily regimen of exercise**

**Strength program:** increasing repetitions of straight leg rises from a seated position. Slowly increase resistance.

**Balancing program:** work on balancing exercises -The New York times recently published a good series of balancing exercises.

**Flexibility program:** general exercises (bending and stretching types)

Increasing muscle strength will let you avoid easy falls, as will balance exercises. Flexibility modifies general awkwardness. Check with any physical therapist, and you will see this is what they aim for. Ask a trainer and you will get a resounding affirmation. And finally if you corner your M.D. and ask about these exercises, you will find, “no objections.”

**Last**

Stay truly in the moment. That is, look and be on guard against objects that can cause tripping or falling. Distraction is a killer. Think of the story you last heard from a patient lying in hospital with a fractured hip. Wasn’t the story, “I was just” (doing something in their daily routine that required no thought), “and I tripped or fell.” And as a corollary - check your home or areas which you frequent for hazards that can cause trips or falls.

Americans have always been great with self-help. Why should Osteopenia, on which medicine has an incomplete grasp, be an exception?

**So, no promissory pills, injections or “cures”**

Exercise, practice environmental awareness, and simply take the recommended daily calcium and Vitamin D dosage. It’s as good as it gets at present - safe, effective and above all-in your hands.