

An Interview With Lawrence Einhorn, MD: Testicular Cancer—Don't Settle for the Status Quo



Lawrence Einhorn, MD

Any discussion of the treatment of testicular cancer will almost certainly include mention of Lawrence Einhorn, MD, of Indiana University. Dr. Einhorn has created a major program in clinical investigation and he himself is credited with major advances in the curative treatment of this cancer, most notably in the clinical use of platinum-based chemotherapy. He performed undergraduate work at Indiana University in Bloomington, Indiana, and then went to medical school in Iowa. He did an oncology fellowship at M.D. Anderson Cancer Center in Houston, Texas, before returning to Indiana to join the faculty at Indiana University in 1973. He has been there for 32 years. *The Journal of Oncology Practice*

contacted Dr. Einhorn at the university, where he is Distinguished Professor of Medicine, and asked him to tell us a bit about his history of treating the disease, his clinical program, and his personal history.

JOP: What motivated you to enter medicine, and then to specialize in oncology?

LE: I always liked medicine. My father was a physician, so from early high school days I was pretty sure I was going into medicine. I just didn't know I would be going into oncology.

JOP: You have been credited with major advances in the curative treatment of testicular cancer, and the clinical use of platinum-based chemotherapy. Are there lessons that clinical investigators can learn from your experience?

LE: We did our initial studies of chemotherapy in testicular cancer with cisplatin a little over 30 years ago, in 1974. At that time, cisplatin was an experimental drug. Those studies show the value of doing clinical trials with new experimental drugs that look promising as they come through the pipeline. In other words, not just settling for the status quo, but trying to move the field forward.

Our initial study was a phase II study that added cisplatin to two previously commercially available drugs, vinblastine plus bleomycin. The results were so spectacular, it's one of the few times in medicine that there really was never a phase III study comparing metastatic testicular cancer patients who got or did not get cisplatin. It just became standard therapy based on that single phase II study.

JOP: How have your discoveries influenced the growth and development of your clinical research enterprise?

LE: Over the next several decades, we did a series of clinical trials that demonstrated how we could reduce the toxicity of the treatment, and shorten its duration. We substituted another drug that was experimental at the time, etoposide, for

the vinblastine, and in so doing both lowered the toxicity and improved the therapeutic results. We looked at how to cure patients when they weren't cured with therapy the first time around. We learned how to make better use of antiemetics, antinausea and vomiting medications. All of these steps were done as a consecutive series of clinical trials, or clinical experiments, if you would, after the initial breakthrough and discovery of the remarkable activity of cisplatin."

JOP: What lessons can oncologists in small or community research centers draw from your work?

LE: For the majority of cancer patients, therapy is sort of like shopping at a store, or going to a restaurant: You like to do things in your neighborhood. It's unlikely that a physician who's an oncologist in a small, rural hospital is going to be the first on the planet to use an experimental drug. But, basically, the type of clinical trials that we do in 2005 are done through a network that we have here, the Hoosier Oncology Group, affectionately known as the HOG. This is a way of allowing well-trained, well-motivated community oncologists to have access to experimental drugs and clinical trials done under the aegis of the Hoosier Oncology Group so that the identical type of investigational therapy and innovative therapy that is done at a major medical center can be done by well-trained people in smaller hospitals that are not associated with a university hospital or an NCI [National Cancer Institute] cancer center.

JOP: And has your location ever been an issue in recruiting investigators, staff, or colleagues?

LE: No. None whatsoever.

JOP: What are you working on now, and what do you see in the future for testicular cancer?

LE: You know, testicular cancer is a luxury for an oncologist to treat. No matter how far advanced the disease, your goal of therapy is never merely palliation nor prolongation of survival. It is always cure. When we look at all patients who present with metastatic disease [who are] getting chemotherapy, from the day they get chemotherapy, we have an 80% cure rate. This is far higher than any other metastatic disease treated with chemotherapy, but it also means that 20% of the patients with testicular cancer—and these are usually young men in their 20s—still succumb to their disease. So we continue as we have been doing in previous decades, in working at refining the cure, if you will, and trying to develop more successful strategies for the really far advanced disease as first-line therapy, as well as developing novel treatments for those patients that were not cured with their initial platinum-based chemotherapy.

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