

**ANITA MAHAJAN:** Proton therapy is actually looking really good. Data is being accumulated. Early analysis from other institutions does indicate that there is less intellectual deficits, fewer deficits that occur after proton therapy when compared to X-ray radiation.

We find that there should be lower hearing problems, lower endocrine problems. And we ourselves are collecting our data on a prospective database and looking at patient outcomes to really verify and continue to improve our outcomes. One of the challenges is knowing that everything I do is going to have side effects. And so really trying to understand what I need to treat, what I don't need to treat, how to best do that, and incorporating the newest knowledge.

At Mayo Clinic, we've adopted the approach to really do things better and not just accept the standard as that approach that we want to adopt. One of the things that we've done from an early time is try to understand the biology of particle therapy. And in particular, we've incorporated the radio biology aspects of proton therapy into all of our dose calculations.

Referring physicians will find that access to our services is quite easy. We're open and communicative. We refer our patients back to the services that they can provide locally. We will give them feedback about our findings and really incorporate their input into that the care of the child.

**ELIZABETH YAN:** We always try whenever possible to have our patients returned to the referring physicians for their ongoing care so that we can provide them both with the most appropriate care within their local communities and also so that their providers can gain experience in managing their patients so that they know which patients are appropriate for referral and which patients probably would be better served by being referred to a more experienced tertiary care facility.

**ANITA MAHAJAN:** The value of a second opinion is that a patient is getting expert opinions and a reassessment of the information that was provided. They'll have a fresh look from a comprehensive point of view, and we want to make sure that we're really doing the right thing from the beginning, because our first opportunity to intervene is usually our best opportunity. And we don't want to make any mistakes.

**SAMEER KEOLE:** We're very respectful of our colleagues and not just colleagues who work at the Mayo Clinic, but we really view our physician and physicians across the country as their colleagues. We want to be a resource. If patients could benefit from proton-beam therapy-- when I talk to the referring physicians, I say, look, we respect the relationship you have with the patient. We really view ourselves in many ways an extension of your clinic.

If you don't proton therapy, but you think your patient would benefit, then we'll work with you to make sure your patient gets the care here he or she needs. We'll certainly keep you up to date with the progress. And certainly, we want to work together with you not just in delivering the care, but also being a part of the follow-up team so we can both best serve the patient.