Treating Spinal Storage Diseases with Macro Data?

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The avid reader of EBSJ may be surprised that we have three case reports in this issue. Of course, the editors of this fine journal are keenly aware that in the evidence pyramid, case reports rank dead last due to their limited scientific value and high variability. However, in reviewing these case reports, we found a common denominator that is hopefully of some value to our readership: that of the underlying pathomechanism being storage diseases. These conditions have truly remained somewhat of a stepchild in spine surgery; outside of the traditional realms of deformity, trauma, neoplasia, and infection, they and metabolic bone diseases have remained more on the fringes of our clinical awareness. To the present date, it remains unclear how often patients with storage diseases and spinal problems remain undiagnosed by their spine surgeons, and similarly, how infrequently the primary care providers treating the disease processes are unaware of the potential spinal implications of these disorders. In all the cases presented in this EBSJ issue, the run-up time until appropriate diagnosis was long, and also in all the cases, the typically late spine manifestations prevented a "cure" and required reconstructive intervention.

With the advent of large-scale data banks—such as provided through the AOSpine International Knowledge Forum—hopefully, interested groups will form a “Storage Disease” section to start collecting these diseases and make detection, treatment, and eventually prevention a distinct possibility in the not-too-distant future.

Therefore, we hope that these case reports—all thoughtfully written and full of interesting observations—will trigger a more coordinated data collection effort for the forgotten stepchild of spine: storage diseases. The power of global data storage with biological specimens could conceivably trigger unprecedented disease insights. We hope the AOSpine community will not just agree but also act.