



## Editorial

# Structured Reporting of Skeletal Survey in Skeletal Dysplasia

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Skeletal dysplasia represents a big group of disorders with molecularly based skeletal abnormalities. These occur as a result of errors in skeletal development in utero, and the clinical spectrum of disease evolves and affects individual's life based on the lethality of the disorder. There are reported to be at least 400 different types of skeletal dysplasia in the scientific literature, most of which (owing to their rarity), we as radiologist may never come across our careers.<sup>1</sup> The naming and grouping of these disorders are ever changing, posing a further challenge to remember the details of each entity, often required for making a correct diagnosis. Diagnosis is often achieved through a combination of antenatal ultrasonography (where available), postnatal clinical examination, skeletal surveys, and genetic analysis. A multidisciplinary care forms the foundation for the management of an affected child.<sup>2</sup> Prenatal diagnosis of skeletal dysplasia remains challenging; however, in recent times, this certainly has seen an upswing. Some dysplasias display the same physical characteristics, yet are molecularly different, and vice-versa. Although no single unifying features exist, an evaluation of the various sonographic parameters can be performed that are helpful toward making a precise diagnosis.<sup>3</sup>

Today, Internet has emerged as a powerful tool and helps in a quick diagnosis of skeletal dysplasia, more so with the popularity of the online databases that specifically catalogue human genetic disorders and genes. These include the London Medical Databases, the Rare Disease Database, and POSSUM (pictures of standard syndromes and undiagnosed malformations).<sup>1</sup> These and many other online available databases; however, they do vary in the extent of coverage of the radiologic images.

Skeletal survey in postnatal period is the cornerstone for making a diagnosis of skeletal dysplasia radiologically. Adopting a systematized and structured reporting format to the radiographic assessment of skeletal dysplasia can optimize the role of diagnostic imaging in forming a diagnosis.<sup>4,5</sup> This will

further allow a high grade of standardization and thus a safe and unequivocal report communication. It will ensure a constant level of high reporting quality and increase the efficiency of report generation, as well as a clinically based communication of imaging results. Meticulous reporting of the pattern, extent, and severity of skeletal pathology on radiographs forms an essential component of the skeletal survey.<sup>4</sup> Structured reporting pattern in reporting of skeletal dysplasia, once followed, would have the enormous advantage of reducing perplexity in radiology reports, breeding uniformity across different institutes, and radiology centers.<sup>5</sup>

Many artificial intelligence algorithms are being developed in an effort to change the paradigms of imaging and clinical management and would soon be integrated in our reporting modules. However, radioclinical correlations are indispensable and will always be required to make correct diagnosis of skeletal dysplasia.

### Conflict of Interest

None declared.

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