

Risdiplam: the South African Experience - Challenges and Successes. A case series of 3 SMA patients.

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Introduction

In recent years, there has been major progress in the treatment of SMA, with the development of 3 different gene-targeting SMN replacement therapies.¹

Risdiplam (SAHPRA registered 2022).²

- Small molecule
- Splicing modifier of the SMN2 gene
- Increased expression of SMN 2
- Most affordable of the novel therapies
- Simple to administer
- Good efficacy
- Excellent safety profile

This case series reviews the journey of the first 3 patients in South Africa who were able to access Risdiplam.

Background of Health Care System in South Africa

Public system - no SMA treatment available.

Private system - application for funding is done on an individual needs basis.

References:

1. Chaytow H, Faller KM, Huang Y, Gillingwater T. Spinal muscular atrophy: From approved therapies to future therapeutic targets for personalized medicine. Cell Reports Medicine. 2021 Jul; 2(7):100346; 2. Evrysdi® 0.75 mg/mL powder for oral solution. [Professional Information and Patient Information Leaflet]. Roche Products, 23 August 2022

Table describing the utilization of Risdiplam for first 3 patients in South Africa

| | Case 1 | Case 2 | Case 3 |
|---|---|---|---|
| SMA type | 2 | 1 | 3 |
| Age at Diagnosis (months) | 27 | 12 | ± 48 |
| Time taken for approval of funding (months) | 42 – still not approved (now pursuing legal action) | 1 | 7 |
| Type of Funding | Compassionate use programme | Ex-Gratia | Ex-Gratia |
| Interruptions to treatment | None | 6 weeks at time of publication | 6 weeks |
| Reason for interruption | | Declined funding | Declined funding |
| Condition prior to treatment | Revised Hammersmith Scale for SMA Score: dropped by 8 points in the 9 months prior to starting treatment. | Ventilator dependent Tube fed Power: Proximal UL: 2/5 Proximal LL: 0/5 Distal UL + LL: 2/5 | Power: Prox UL: 3/5 Prox LL: 2 Distal UL +LL:3-/5 Increasing difficulty with Gower’s maneuvers |
| Condition after starting treatment | Within 7 months: Score increased by 12 points | Within 5 months: Independence from Ventilator (NCPAP at night) Tube and oral feeding Power: Proximal UL: 3/5 Proximal LL: 2/5 Distal UL + LL: 3/5 | Within 5 months: Power: Prox UL:4/5 Prox LL: 2 Distal UL +LL:3/5 Significant improvement with Gower’s maneuvers |
| Anecdotal comments from Patients / caregivers / doctors | “He managed to get himself off the bed, navigate down 2 flights of stairs and crawl into the lounge - this is a monumental moment. I have never been able to walk hand in-hand with my little boy (something I often think about) but having him able to crawl into my lap for a cuddle has been such a gift. | “It was wonderful to give them hope and to get this baby home again.” | “To regain full at home independence has been nothing short of joyful ... moving in public spaces has significantly reduced psychological and physiological anxiety.” |

Conclusions

Risdiplam is registered for use in South Africa, for SMA. However, there are still major challenges in accessing it, with only 3 patients currently on it. Despite all 3 patients having made considerable progress, they have had significant challenges with treatment interruptions and reluctance from funders to fund the treatment.

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