

Ensayo fase III

IEDAT

A Multi-center, Randomized, Double-blind, Placebo-controlled Trial to Evaluate the Effects of *Intra-Erythrocyte Dexamethasone Sodium Phosphate* on Neurological Symptoms in Patients with *Ataxia Telangiectasia*

Los corticoides por via oral son útiles en la Ataxia Telangiectasia, pero con efectos adversos

Potential Therapeutic Strategies: Oral bethamethasone

Betamethasone and Improvement of Neurological Symptoms in Ataxia-Telangiectasia
Arch Neurol. 2009;67(11):1479-1482
 Sárera-Barral, MD; Bagaría-Camalló, MD; Lario-Serretor, MD; Alberto-Fas, MD

European Journal of Neurology 2009; 16: 225-228
 doi:10.1111/j.1468-1329.2009.02004.x
Steroid-induced improvement of neurological signs in ataxia-telangiectasia patients
 T. Broccoli¹, E. Del Giudice², S. Amorisi¹, I. Russo¹, M. Di Bontà¹, F. Imperati¹, A. Romano¹ and C. Pignatta
Department of Pediatrics¹, Faculty of Sciences, Naples, Italy

European Journal of Neurology 2011; 16: 260-263
 doi:10.1111/j.1468-1329.2010.02262.x
Efficacy of very-low-dose betamethasone on neurological symptoms in ataxia-telangiectasia
 T. Broccoli¹, E. Del Giudice², E. Cirillo¹, I. Vighiano², G. Giardinò¹, V. M. Giroschi¹, S. Broccoli¹, G. Riccardi¹ and C. Pignatta¹
¹Department of Pediatrics, Federico II University, Naples; and ²Department of Clinical and Experimental Medicine, Section of Pharmacology, University of Ferrara, Ferrara, Italy

European Journal of Neurology 2009; 16: 703-707
 doi:10.1111/j.1468-1329.2009.02002.x
In ataxia-telangiectasia betamethasone response is inversely correlated to cerebellar atrophy and directly to antioxidative capacity
 I. Russo¹, C. Costantino¹, E. Del Giudice², T. Broccoli¹, S. Amorisi¹, E. Cirillo¹, G. Alei¹, A. Fusco¹, V. Costanzo¹ and C. Pignatta¹
¹Department of Pediatrics, Federico II University, Naples, Italy; and ²Neurology, Istituto Nazionale Neurologico Carlo Besta, Milan, Italy; ³Johns Hopkins, Baltimore, Maryland, USA

- Serendipitous findings have suggested beneficial effects of corticosteroids in the treatment of AT
- Short term trials with an oral corticosteroid showed improvement of neurological symptoms in AT patients
- Significant steroid side effects led to discontinuation of treatment and search for other options

Corticoides (dexametasona) intraeritrocitarios . Ensayo fase II

IEDAT Phase II trial

Chessa et al. Orphanet Journal of Rare Diseases 2014, 9:5
<http://www.ojrd.com/content/9/1/5>



RESEARCH

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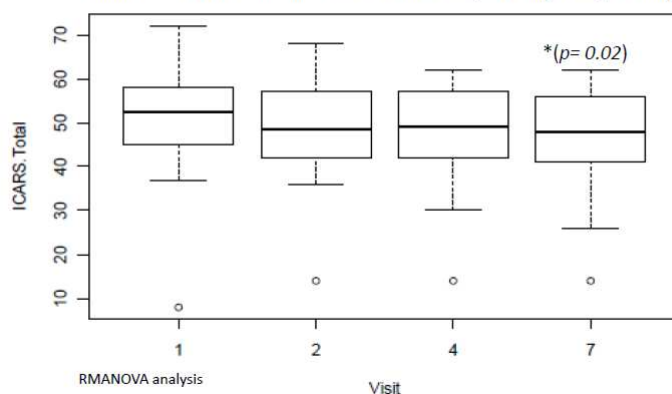
Intra-Erythrocyte Infusion of Dexamethasone Reduces Neurological Symptoms in Ataxia Teleangiectasia Patients: Results of a Phase 2 Trial

Luciana Chessa¹, Vincenzo Leuzzi^{2*}, Alessandro Plebani³, Annarosa Soresina³, Roberto Micheli⁴, Daniela D'Agnano², Tullia Venturi², Anna Molinaro⁵, Elisa Fazzi⁴, Mirella Marini³, Pierino Ferremi Leali³, Isabella Quinti⁶, Filomena Monica Cavaliere⁶, Gabriella Girelli⁶, Maria Cristina Pietrogrande⁷, Andrea Finocchi⁸, Stefano Tabolli⁹, Damiano Abeni⁹ and Mauro Magnani¹⁰

Corticoides (dexametasona) intraeritrocitarios . Ensayo fase II
 Mejora escala de ataxia (ICARS)

Primary efficacy end-point met

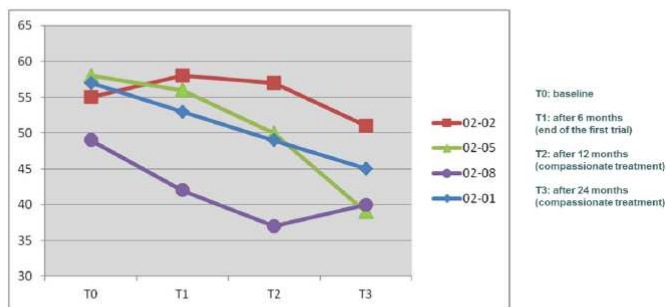
Mean ICARS Total Score over the 6-Month Study Period (ITT Population)



**Corticoides (dexametasona) intraeritrocitarios .
Seguimiento a largo plazo tras el Ensayo fase II
Mejora escala de ataxia (ICARS)**

Chronic treatment with EDS

Long term benefit confirmed with compassionate treatment up to 2 years



Improvement of ICARS score : + 19.7%

At the end of the first 6-month trial, 4 male subjects (mean age 10,6 years) continued EDS treatment for an adjunctive 24-month period

Seguridad Dexametasona en eritrocitos

En diversos estudios se han tratado en total:

- 209 sujetos, con 1827 infusiones en total.
- 51 son pediátricos (< 18 años): Fibrosis quística 11, Enf Crohn 19, A-T 22)

Sin toxicidad relacionada con el procedimiento ni con la dexametasona.

Algunos han sido tratados largo tiempo, hasta 36 meses

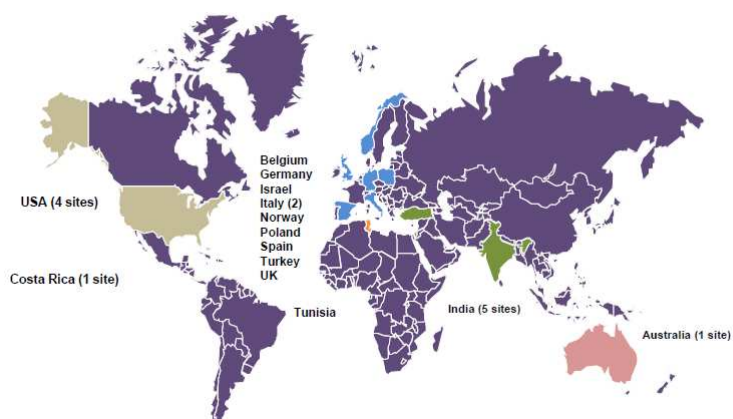
Ensayo fase III

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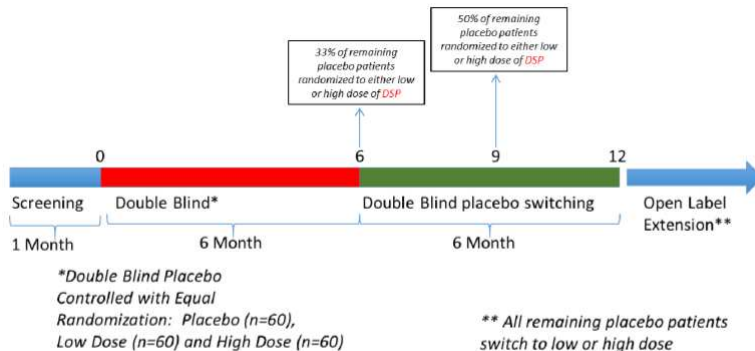
Ensayo fase III
Centros participantes

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**Ensayo fase III
Esquema**

Scheme of Pivotal Trial in AT

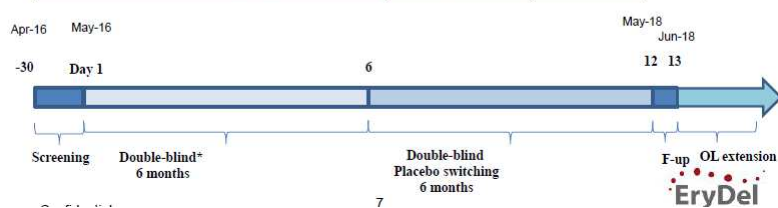


Schedule of Visits and Assessments: 6-Month Initial Treatment Period

Visit (V) #	Screening	V1	V2	V3	V4	V5	V6	V7	V8	V9
Study Day or Month (D/M) #	D-30 to -1	D0/1	D2	D15	M1	M2	M3	M4	M5	M6 (a,b)
Procedure		Pre(c)	Post(c)				Pre(c)	Post(c)		
Informed Consent Signature	X									
Medical History	X									
Inclusion/Exclusion Criteria (v)	X	X								
EDS-EP Infusion (h)		1			2	3	4	5	6	
Neurological Examination	X	X					X			X
Physical Examination	X	X	X		X	X	X	X	X	X
Vital Signs	X	X	X		X	X	X	X	X	X
ECG	X	X(f)					X			X
Routine Laboratory Tests (e)	X	X(f)					X			X
Bone Mineral Density		X								X
Serum Pregnancy Test (o)	X	X								X
ICARS (with video recording)	X(a)	X(a)					X			X
CGI-C							X			X
CGI-S	X	X					X			X
VABS		X					X			X
A-TNEST		X					X			X
Quality of Life (EQ-5D-Y)		X					X			X
C-SSRS		X								X
RBC osmotic resistance (l)	X	X					X			
Special Laboratory Tests	X(f)	X(f,g)	X(m)	X(m)	X(m)	X(m)				X(f,g)
Hemolysis Panel (s)		X	X	X	X		X	X		
Urinary Cortisol	X	X	X	X	X	X	X			X
Genetic AT diagnosis (q)	X									
Mini-ATM detection		X			X					X
Dexamethasone PK sample		X(f)	X(f)	X(f)	X(f)	X(f)	X(f)	X(f)	X(f)	X(f)
EDS and product sample		X			X	X	X			X
Prior/Concomitant Treatments	Throughout the duration of the study									
Adverse Events	Throughout the duration of the study									

Projected Timelines

	Start Date	End Date
Study Start-Up	Ongoing	
Enrolment (12 months expected)	Apr-16	Apr-17
Treatment (Last Day 1 to Last Month 12)	May-17	May-18
Last Month 6 visit		Nov-17
Follow-Up Period (last Month 13)	May-18	Jun-18
Final Lock Data	Jun-18	Jul-18
Final Stats Analysis	Jul-18	Aug-18
Final Clinical Study Report	Aug-18	Oct-18



Ensayo fase III Medidas de eficacia

Ensayo fase III Medidas de eficacia

- Escala de ataxia (ICARS),
- escala de mejora global (CGI-S y CGI-C) ,
- escala adaptación personal y social (VABS) y
- escala de calidad de vida (EQ-5D-Y)