

Metformin Pharmacokinetics in young girls

Submission date 03/03/2011	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered
Registration date 15/03/2011	Overall study status Completed	<input type="checkbox"/> Protocol
Last Edited 14/08/2012	Condition category Nutritional, Metabolic, Endocrine	<input type="checkbox"/> Statistical analysis plan
		<input checked="" type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data

Plain English summary of protocol

Not provided at time of registration

Contact information

Type(s)

Scientific

Contact name

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Contact details

Hospital Sant Joan de Deu, University of Barcelona
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Spain
08950

Additional identifiers

Protocol serial number

PIC-72-10

Study information

Scientific Title

Pharmacokinetics of Metformin at age 9

Acronym

MPK

Study objectives

To ascertain whether the pharmacokinetic parameters after oral metformin administration in young children are comparable to those in adults

Ethics approval required

Old ethics approval format

Ethics approval(s)

Review Board Hospital Sant Joan de Deu, approved on 10th November 2010

Study design

Randomised controlled trial

Primary study design

Interventional

Study type(s)

Screening

Health condition(s) or problem(s) studied

Advanced puberty

Interventions

The patients were sampled after being admitted to the hospital, every 45 minutes for 3 hours and then 4, 6, 8, 10 and 12 hours after metformin intake, 850 mg/d.

The girls were started on metformin at a mean age of 9 years.

Intervention Type

Other

Phase

Not Applicable

Primary outcome(s)

1. Height velocity: according to local reference curves: Ferrández-Longás A, Mayayo E, Labarta JI, Bagué L, Puga B, Rueda C, Ruiz-Echarri M, Labena C. Estudio longitudinal de crecimiento y desarrollo. Centro Andrea Prader. Zaragoza 1980-2002. In ERGON, ed. Patrones de crecimiento y desarrollo en España. Atlas de gráficas y tablas., pp 61-115. Madrid: 2004
2. Pubertal status: according to Tanner standards (Marshall WA, Tanner JM. Variations in the pattern of pubertal changes in girls. Arch Dis Child 1969; 44:291-303)

Key secondary outcome(s)

1. Bone age: according to Greulich & Pyle
2. Uterine and ovarian size: as measured by ultrasound and according to: Griffin IJ, Cole TJ, Duncan KA, Hollman AS, Donaldson MDC. Pelvic ultrasound measurements in normal girls. Acta Paediatr 1995; 84:536-543

Completion date

12/03/2011

Eligibility**Key inclusion criteria**

The study population consisted of 6 non-obese, Caucasian girls receiving metformin (850 mg/d at dinner time) after a history of low-birthweight (Z-score \leq -1.5 for gestational age) and early-normal puberty (onset of Tanner breast stage 2 at age 8 yr; increase of uterine and ovarian size by ultrasound; pubertal gonadotropin response to GnRH agonist).

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Child

Sex

Female

Key exclusion criteria

1. A family or personal history of diabetes mellitus
2. A history of precocious pubarche or the presence of other signs of androgen excess
3. Evidence for thyroid dysfunction or glucose intolerance
4. Intake of medications known to affect gonadal function or carbohydrate metabolism.

Date of first enrolment

03/03/2011

Date of final enrolment

12/03/2011

Locations**Countries of recruitment**

Spain

Study participating centre

Hospital Sant Joan de Deu, University of Barcelona

Esplugues, Barcelona

Spain

08950

Sponsor information**Organisation**

Hospital Sant Joan de Déu, University of Barcelona (Spain)

ROR

<https://ror.org/001jx2139>

Funder(s)

Funder type

Hospital/treatment centre

Funder Name

Hospital Sant Joan de Déu, University of Barcelona (Spain)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	01/11/2011		Yes	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes