

I-ONE therapy in patients undergoing total knee arthroplasty

Submission date 29/10/2010	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered
		<input type="checkbox"/> Protocol
Registration date 04/11/2010	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan
		<input checked="" type="checkbox"/> Results
Last Edited 18/03/2013	Condition category Musculoskeletal Diseases	<input type="checkbox"/> Individual participant data

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers
001

Study information

Scientific Title

I-ONE therapy in patients undergoing total knee arthroplasty: Prospective and randomised study with a control group

Acronym

IKA

Study objectives

Total knee arthroplasty (TKA) is often accompanied by a severe inflammatory reaction which, unless controlled, leads to persistent pain up to a year after surgery. Biophysical stimulation with I-ONE therapy has demonstrated to protect articular joint from catabolic activity of pro-inflammatory cytokines.

The aim of this study was to evaluate if patients undergoing TKA could benefit from I-ONE therapy, leading to early control of inflammation and relief of pain resulting in early and complete return to daily activities.

Ethics approval required

Old ethics approval format

Ethics approval(s)

The local ethics committee of the General Hospital of Bari approved in December 2007

Study design

Prospective randomised controlled parallel group trial

Primary study design

Interventional

Secondary study design

Randomised controlled trial

Study setting(s)

Hospital

Study type(s)

Treatment

Participant information sheet

Not available in web format, please use contact details below to request a patient information sheet

Health condition(s) or problem(s) studied

Knee arthritis

Interventions

Patients undergoing total knee arthroplasty will be randomised to receive either

1. I-ONE therapy, post-surgery, 4 hours/day for 60 days
2. Treatment as usual

The total duration of follow up will be 1 year

Intervention Type

Other

Phase

Not Applicable

Primary outcome measure

Pain assessed by Visual Analogue Scale (VAS):

A 10 cm horizontal line corresponding to a scale evaluating the pain, where the left end stands for complete absence of pain and the right end the maximum possible pain or unbearable pain.

All outcomes will be assessed at 1, 2, 6 and 12 months.

Secondary outcome measures

1. Knee Society forms, involving a clinical evaluation, Knee Score (that assesses pain, range of motion, stability, contracture in bending, active extension deficit, alignment) and a functional one, Functional Score (that examines autonomy in walking, climbing stairs, use of stick or frame), both with values from 0 to 100.
2. Functional evaluation scale SF-36, that evaluates the patient with 36 questions, 10 of which one physical activity, 4 on role limitations due to physical health, 3 on role limitations correlated to emotional state, 2 on physical pain, 5 on perception of state of general health, 4 on vitality, 2 on social activities, 5 on mental health and 1 on change in state of health.
3. Joint swelling: A scale, with scores from 1 to 40, to quantify the presence of joint swelling evaluated by the operator on palpation by balloting the knee.
4. Monitoring of assumption of NSAIDs at all follow-ups

All outcomes will be assessed at 1, 2, 6 and 12 months.

Overall study start date

01/01/2008

Completion date

30/06/2010

Eligibility

Key inclusion criteria

1. Either sex, aged ≥ 60 and < 85
2. Presenting an advanced state of knee arthritis and scheduled for prosthetic replacement
3. Misalignment in varus/valgus respectively not exceeding 20° and 15° and deformity in bending less than 15°

Participant type(s)

Patient

Age group

Senior

Sex

Both

Target number of participants

from 1 to 30

Key exclusion criteria

1. Patients who had undergone previous surgery to the same knee or had been operated on for hip prosthesis
2. Patients with BMI >30 Kg/m²
3. Patients with pathological processes such as
 - 3.1. rheumatoid arthritis
 - 3.2. autoimmune conditions
 - 3.3. systemic diseases
 - 3.4. tumours

Date of first enrolment

01/01/2008

Date of final enrolment

30/06/2010

Locations**Countries of recruitment**

Italy

Study participating centre

Piazza Giulio Cesare, 11-Bari

Bari

Italy

70124

Sponsor information**Organisation**

IGEA (Italy)

Sponsor details

Via Parmenide, 10/A

Carpi

Italy

41012

Sponsor type

Industry

Website

<http://www.igea.it/>

ROR

<https://ror.org/01bws2668>

Funder(s)

Funder type

University/education

Funder Name

University of Bari (Italy)

Funder Name

IGEA (Italy)

Results and Publications

Publication and dissemination plan

Not provided at time of registration

Intention to publish date

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	06/06/2012		Yes	No