Clinical trial results:
Prospective phase II study of the effectiveness and safety of autologous dendritic cells vaccination in high-risk locally advanced colon adenocarcinoma

Summary

EudraCT number	2010-024118-73
Trial protocol	ES
Global end of trial date	21 May 2019

Results information

Result version number	v1 (current)
This version publication date	14 February 2023
First version publication date	14 February 2023

Trial information

Trial identification

Sponsor protocol code	CDCC/2010

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	-
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Clínica Universidad de Navarra/Universidad de Navarra
Sponsor organisation address	Avda. Pío XII, 36, Pamplona, Spain, 31008
Public contact	UCEC, Clínica Universidad de Navarra, 34 948255 400, ucicec@unav.es
Scientific contact	UCEC, Clínica Universidad de Navarra, 34 948255 400, ucicec@unav.es

Notes:

Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	No
Does article 45 of REGULATION (EC) No 1901/2006 apply to this trial?	No
Does article 46 of REGULATION (EC) No 1901/2006 apply to this trial?	No

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	03 May 2021
Is this the analysis of the primary completion data?	Yes
Primary completion date	21 May 2019
Global end of trial reached?	Yes
Global end of trial date	21 May 2019
Was the trial ended prematurely?	Yes

Notes:

General information about the trial

Main objective of the trial:

Relapse-free survival, calculated from the time of primary tumor surgery to the first radiological evidence of disease relapse.

Protection of trial subjects:

NA

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	05 October 2011
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	No

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Spain: 49
Worldwide total number of subjects	49
EEA total number of subjects	49

Notes:

Subjects enrolled per age group

In utero	0
Preterm newborn - gestational age < 37 wk	0
Newborns (0-27 days)	0
Infants and toddlers (28 days-23 months)	0
Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	32
From 65 to 84 years	17
85 years and over	0

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

Locally advanced colon cancer patients with adverse histopathogic and/or molecular features after complete surgical resection and adjuvant fluoropirimidines/oxaliplatin-based chemotherapy were recruited

Period 1

Period 1 title	Treatment period (overall period)
Is this the baseline period?	Yes
Allocation method	Non-randomised - controlled
Blinding used	Not blinded

Arms

Arm title	Experimental group

Arm description:

Mature dendritic cells obtained from mononuclear precursors (peripheral blood monocytes) loaded with autologous tumor tissue lysate, which will be administered by intradermal injections.

Arm type	Experimental
Investigational medicinal product name	Mature dendritic cells obtained from mononuclear precursors (peripheral blood monocytes) loaded with autologous tumor tissue lysate
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Suspension for injection
Routes of administration	Intradermal use

Dosage and administration details:

The expected dose is 10 million dendritic cells, resuspended in 1-2 ml of physiological serum. If there are not enough cells to complete the treatment, those that are available will be administered, reducing the dose or the number of injections.

Number of subjects in period 1	Experimental group
Started	49
Completed	7
Not completed	42
Screening failures	42

Baseline characteristics

Reporting groups

Reporting group title	Treatment period

Reporting group description: -

Reporting group values	Treatment period	Total	
Number of subjects	49	49	
Age categorical Units: Subjects			
In utero	0	0	
Preterm newborn infants (gestational age < 37 wks)	0	0	
Newborns (0-27 days)	0	0	
Infants and toddlers (28 days-23 months)	0	0	
Children (2-11 years)	0	0	
Adolescents (12-17 years)	0	0	
Adults (18-64 years)	32	32	
From 65-84 years	17	17	
85 years and over	0	0	
Gender categorical Units: Subjects			
Female	23	23	
Male	26	26	

End points

End points reporting groups

Reporting group title	Experimental group

Reporting group description:

Mature dendritic cells obtained from mononuclear precursors (peripheral blood monocytes) loaded with autologous tumor tissue lysate, which will be administered by intradermal injections.

Primary: Relapse-free survival

End point title	Relapse-free survival[1]

End point description:

End point type	Primary

End point timeframe:

Follow-up (months): Mean (SD) = 54.60 (25.98); Median (p25, p75) = 61.54 (25.49, 78.23)

Notes:

[1] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: This is a descriptive statistical analysis of the percentage of relapse-free survival patients and follow-up.

End point values	Experimental group			
Subject group type	Reporting group			
Number of subjects analysed	7			
Units: 85.71%	7			

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information	
Timeframe for reporting adverse events: From the administration of the treatment to the end of the follow-up	
Assessment type	Systematic

Dictionary used	
Dictionary name	NA
Dictionary version	0

Reporting groups	
Reporting group title	Treatment

Reporting group description: -

Serious adverse events	Treatment		
Total subjects affected by serious adverse events			
subjects affected / exposed	2 / 7 (28.57%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		
Surgical and medical procedures			
Salpingo-oophorectomy bilateral			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Infections and infestations			
Pneumonia			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		

Frequency threshold for reporting non-serious adverse events: 1 %

Non-serious adverse events	Treatment		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	7 / 7 (100.00%)		
Vascular disorders			
Pulmonary embolism			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		

Hypertension			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	2		
Varices			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
Surgical and medical procedures			
Cytoreductive surgery			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
General disorders and administration site conditions			
Asthenia			
subjects affected / exposed	7 / 7 (100.00%)		
occurrences (all)	9		
Mucosal inflammation			
subjects affected / exposed	3 / 7 (42.86%)		
occurrences (all)	3		
Fatigue			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
Respiratory, thoracic and mediastinal disorders			
Catarrh			
subjects affected / exposed	3 / 7 (42.86%)		
occurrences (all)	3		
Dyspnoea			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
Upper respiratory tract infection			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
Cough			
subjects affected / exposed	2 / 7 (28.57%)		
occurrences (all)	2		
Psychiatric disorders			
Anxiety			

subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
Injury, poisoning and procedural complications			
Burns second degree			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
Cardiac disorders			
Palpitations			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
Cardiac valve disease			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
Nervous system disorders			
Dysaesthesia			
subjects affected / exposed	6 / 7 (85.71%)		
occurrences (all)	7		
Dysgeusia			
subjects affected / exposed	4 / 7 (57.14%)		
occurrences (all)	4		
Neurotoxicity			
subjects affected / exposed	3 / 7 (42.86%)		
occurrences (all)	3		
Paraesthesia			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
Headache			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
Memory impairment			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
Blood and lymphatic system disorders			
Neutropenia			
subjects affected / exposed	3 / 7 (42.86%)		
occurrences (all)	6		

Leukopenia			
subjects affected / exposed	2 / 7 (28.57%)		
occurrences (all)	2		
Anaemia			
subjects affected / exposed	2 / 7 (28.57%)		
occurrences (all)	2		
Thrombocytopenia			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
Ear and labyrinth disorders			
Vertigo			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
Eye disorders			
Eye pruritus			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	5 / 7 (71.43%)		
occurrences (all)	7		
Nausea			
subjects affected / exposed	4 / 7 (57.14%)		
occurrences (all)	4		
Vomiting			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	2		
Abdominal pain			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
Gastrooesophageal reflux disease			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
Intestinal obstruction			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
Umbilical hernia			

subjects affected / exposed occurrences (all) Constipation subjects affected / exposed occurrences (all)	1 / 7 (14.29%) 1 1 / 7 (14.29%) 1		
Hepatobiliary disorders Non-cirrhotic portal hypertension subjects affected / exposed occurrences (all)	 1 / 7 (14.29%) 1		
Skin and subcutaneous tissue disorders palmar subjects affected / exposed occurrences (all) Urticaria subjects affected / exposed occurrences (all) Hyperhidrosis subjects affected / exposed occurrences (all) Erythema subjects affected / exposed occurrences (all)	 2 / 7 (28.57%) 2 1 / 7 (14.29%) 1 1 / 7 (14.29%) 1 1 / 7 (14.29%) 1		
Renal and urinary disorders Dysuria subjects affected / exposed occurrences (all) Pollakiuria subjects affected / exposed occurrences (all) Nocturia subjects affected / exposed occurrences (all)	 1 / 7 (14.29%) 1 1 / 7 (14.29%) 1 1 / 7 (14.29%) 1		
Musculoskeletal and connective tissue disorders Back pain subjects affected / exposed occurrences (all)	 2 / 7 (28.57%) 3		

Osteopenia			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
Meniscopathy			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
Infections and infestations			
Bacteriuria			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
Gastroenteritis			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
Pneumonia			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
Urinary tract infection			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	2		
Metabolism and nutrition disorders			
Decreased appetite			
subjects affected / exposed	4 / 7 (57.14%)		
occurrences (all)	4		
Hyperglycaemia			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		
Fluid retention			
subjects affected / exposed	1 / 7 (14.29%)		
occurrences (all)	1		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
20 February 2012	Non substantial modification (Protocol v3)
20 June 2012	Change of sponsor. Changes in screening visit (tests in reference sites in a longer period of time). (Protocol v4)
21 June 2013	Change s in the IMPD (IMPD v4)
24 March 2014	Changes in study visits (Protocol v5)
29 April 2016	Changes in the IB and sample size (Protocol v6)

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

Limitations of the trial such as small numbers of subjects analysed or technical problems leading to unreliable data.

It was determined that the reported protocol deviations had no impact on the interpretability of the study results. A serious deviation was notified to the corresponding authorities (pregnancy test not performed at the screening visit of 3 patients).

Notes: