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TroVax® and cyclophosphamide treatment in colorectal cancer

Submission date	Recruitment status	[_] Prospectively registered
10/12/2010	No longer recruiting	[_] Protocol
Registration date	**Overall study status**	[_] Statistical analysis plan
05/04/2011	Completed	[X] Results
Last Edited	**Condition category**	[_] Individual participant data
25/10/2022	Cancer	

Plain English summary of protocol
https://www.cancerresearchuk.org/about-cancer/find-a-clinical-trial/a-study-looking-at-vaccine-trovax-after-treatment-for-bowel-cancer-that-has-spread-tacticc

Contact information

Type(s)
Scientific

Contact name
Dr Andrew Godkin

Contact details
Henry Wellcome Building
School of Medicine
Heath Park
Cardiff
United Kingdom
CF14 4XN

Additional identifiers

Protocol serial number
SPON868-10

Study information

Scientific Title
A pilot study to assess the effect of regulatory T cell depletion on 5T4-containing MVA (TROVAX®) vaccination in patients with INOPERABLE metastatic colorectal cancer

Acronym
TaCTiCC

Study objectives
This study will assess the efficacy of using either cyclophosphamide, or a pox virus based vaccine containing the tumour antigen 5T4 called TroVax® (Oxford BioMedica), or both, to deplete T-regs and enhance an immune response following completion of an initial 12 weeks of palliative chemotherapy. Patients who have inoperable metastatic disease will be recruited.

Ethics approval required
Old ethics approval format

Ethics approval(s)
Not provided at time of registration

Primary study design
Interventional

Study design
Interventional multicentre randomised 2 x 2 factorial design pilot study

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Colorectal cancer

Interventions
1. Group 1: Control. No additional treatment unless clinically indicated.
2. Group 2: Metronomic cyclophosphamide 50mg bd (oral) as single agent on weeks 1 (14 doses) and on week 3 (12 doses)
3. Group 3: Vaccination (i.m.) TroVax® (1 x 109 TCID50/mL) at week 1, 3, 5, 7, 9 and 13
4. Group 4: Metronomic cyclophosphamide 50 mg bd (oral) on weeks 1 (14 doses) and week 3 (12 doses), followed by i.m. TroVax® (1 x 109 TCID50/mL) on weeks 4, 6, 8, 10, 12 and 16

Intervention Type
Drug

Phase
Phase I/II

Drug/device/biological/vaccine name(s)
TroVax®

Primary outcome(s)
1. Reduction in the frequency and/or function of Tregs measured in blood samples in patients treated with metronomic cyclophosphamide and/or TroVax® compared to patients not receiving cyclophosphamide
2. Development or increase in T cell responses in patients treated with cyclophosphamide and /or TroVax® versus untreated patients

3. Increase in anti-tumour immune responses measured in blood samples in patients treated with the vaccine TroVax® plus metronomic cyclophosphamide compared to TroVax® alone or no TroVax® group

Key secondary outcome(s)
1. Overall Survival as the time in days from randomisation until death of any cause censoring at date of last follow up
2. Time To Progression with death as a competing risk will be measured as the time in days from randomisation until disease progression as determined by RECIST criteria for radiological imaging and clinical assessment
3. Progression Free Survival will be measured as the time in days from randomisation until progression or death of any cause censoring at date of last follow up

Completion date
23/06/2016

Eligibility

Key inclusion criteria
1. Patient able to give informed consent personally or through a legal representative
2. Signed and dated written informed consent
3. Aged greater than or equal to 18 years, either sex
4. Clinical diagnosis of inoperable colorectal cancer
5. World Health Organization (WHO) performance status 0 - 2
6. Responding or stable disease as defined by oncologist following 12 weeks of chemotherapy as demonstrated on computed tomography (CT) scan in comparison with pre-treatment CT scan (Response Evaluation Criteria in Solid Tumours [RECIST])
7. Subject is clinically immunocompetent
8. Any cancer related symptoms are under control with standard non-chemotherapy medications
9. Subject has adequate bone marrow function as defined by an absolute lymphocyte count greater than or equal to 500/µL, absolute neutrophil count greater than 1200/µL and platelet count greater than 100,000/µL

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 Years

Sex
All

Total final enrolment
52

Key exclusion criteria
1. Patient unable to give informed consent personally or through a legal representative
2. Creatinine level greater than 1.5 x upper limit of normal (ULN)
3. Bilirubin level greater than 50 µmol/l
4. Alkaline phosphatase greater than 3 x ULN
5. Aspartate aminotransferase (AST) and alanine aminotransferase ALT) greater than 2 x ULN
6. Prothrombin time greater than 18 seconds
7. Prior exposure to TroVax®
8. Life expectancy of less than 3 months
9. Diagnosed as being immunosupressed, receiving oral steroids (nasal sprays and inhalers are permitted) or receiving immunosuppressive therapy for oncology disorders, or following transplant
10. Patient has completed chemotherapy more than 2 weeks from the start of the treatment
11. Subject has clinically apparent/active autoimmune disease (prior confirmed diagnosis or treatment for autoimmune disease including Systemic Lupus Erythematosis, Grave's disease, Hashimoto's thyroiditis, multiple sclerosis, insulin dependent diabetes mellitus and rheumatoid arthritis). Note: subjects with non-insulin dependent diabetes mellitus can be included, as can subjects with controlled and rarely flaring rheumatoid disease.
12. Subject has a platelet count prior to start of chemotherapy greater than 400,000/µL; monocytes greater than 80,000/ µL; haemoglobin less than 9 g/dL
13. Significant cancer related symptoms requiring immediate treatment with chemotherapy
14. "Currently active" second malignancy, other than non-melanoma skin cancer. Subjects are not considered to have a "currently active" malignancy if they have completed therapy more than 5 years previously and have no known evidence of residual or recurrent disease.
15. Evidence of significant clinical disorder or laboratory finding which in the opinion of the investigating physician makes it undesirable for the patient to participate in the trial. No participant should have a serious or uncontrolled intercurrent infection (including those positive for HIV).
16. Psychiatric illnesses/social situations that limit compliance with protocol requirements
17. Allergy to egg proteins, cyclophosphamide, neomycin or allergic response to vaccinia vaccines
18. Known cerebral metastases (known from previous investigations or clinically detectable)
19. Haemorrhagic cystitis
20. Severe infection

Date of first enrolment
01/04/2011

Date of final enrolment
31/03/2014

Locations

Countries of recruitment
United Kingdom

Wales

Study participating centre

Henry Wellcome Building
Cardiff
United Kingdom
CF14 4XN

Sponsor information

Organisation
Cardiff University (UK)

ROR
https://ror.org/03kk7td41

Funder(s)

Funder type
Charity

Funder Name
Cancer Research Wales

Alternative Name(s)
Ymchwil Canser Cymru, CRW

Funding Body Type
Government organisation

Funding Body Subtype
Trusts, charities, foundations (both public and private)

Location
United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan
Not provided at time of registration

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	12/10/2017		Yes	No
Plain English results			25/10/2022	No	Yes