Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

A randomized, phase 3, two-armed, parallel group, double blind (patient and outcome assessor blinded), active control, non-inferiority clinical trial to assess the efficacy and safety of Cetuximab bio-similar (Zistdaru Danesh Co. ®) compared to Erbitux (Merck®) in the patients with head and neck squamous cell carcinoma.

Protocol summary

Study aim

A non-inferiority clinical trial to assess the efficacy and safety of Cetuximab bio-similar compared to Erbitux in the patients with head and neck squamous cell carcinoma.

Design

This study is a phase 3, randomized (using permuted block randomization method), two-armed, double-blind, parallel, and active control clinical trial.

Settings and conduct

After the randomization, 98 of the eligible patients will receive Cetuximab and 65 patients will receive Erbitux. Patients in each group undergo radiotherapy one week after prescribing study drugs. Prescribing study drugs with radiotherapy will continue for up to 8 weeks. Blinding is done for all of the treatment staff, outcome assessors and patients.

Participants/Inclusion and exclusion criteria

Inclusion criteria: age 18 or older, patients with supraglottic and oral cavity cancer, head and neck cancers with involved local lymph nodes without specific primary origin, patients with stages 2, 3 and 4 non-metastatic nasopharyngeal cancer, patients with stages 3 and 4 oropharynx and larenxo hypopharynx cancer, minimum "Karnofsky performance" score should be 60, and organs function should be appropriate. Exclusion criteria: sustained electrolyte disorders such as resistant hypomagnesemia, any proven pathology other than squamous cell carcinoma, serious underlying lung disease, history of cancer and chemotherapy over the past three years, history of head and neck radiotherapy, breastfeeding, pregnancy, and all patients who can not be radiotheraped or there will be problems with it.

Intervention groups

Intervention group: Cetuximab bio-similar (Zistdaru Danesh Co. ®) + Radiotherapy; Control group: Erbitux (Merck®) + Radiotherapy.

Main outcome variables

The primary outcome of the study is TTP (time to progression), defined as the time from randomization until objective tumor progression.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20190112042328N1**
Registration date: **2019-02-01, 1397/11/12**
Registration timing: **prospective**

Last update: **2019-02-01, 1397/11/12**
Update count: **0**

Registration date

2019-02-01, 1397/11/12

Registrant information

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date
2019-05-05, 1398/02/15
Expected recruitment end date
2021-05-05, 1400/02/15
Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title
A randomized, phase 3, two-armed, parallel group, double blind (patient and outcome assessor blinded), active control, non-inferiority clinical trial to assess the efficacy and safety of Cetuximab bio-similar (Zistdaru Danesh Co. ®) compared to Erbitux (Merck®) in the patients with head and neck squamous cell carcinoma.

Public title
Evaluation the efficacy and safety of Cetuximab bio-similar compared to Erbitux in the patients with head and neck squamous cell carcinoma.
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Age 18 years or older Patients with supraglottic and oral cavity cancer Head and neck cancers with involved local lymph nodes without specific primary origin Patients with stages 2, 3, and 4 non-metastatic nasopharyngeal cancer Patients with stages 3 and 4 oropharynx and larenxo hypopharynx cancer Minimum "Karnofsky performance" score should be 60. Organs function should be appropriate: (Platelete count≥100000, Serum creatinine≤1.2 mg% or Creatinine clearance≤50 mL/min, Total bilirubin≤1.5 mg/100 mL, Haemoglobine≥10gm/DL, Absolute neutrophil count≥1,500/mL, and normal liver function tests)
Exclusion criteria:
Sustained electrolyte disorders such as resistant hypomagnesemia Any proven pathology other than squamous cell carcinoma The presence of serious underlying lung disease Previous history of cancer and chemotherapy over the past three years Previous history of head and neck radiotherapy Breastfeeding Pregnancy All patients who can not be radiotheraped or there will be problems (such as scleroderma patients, anatomical problems based on the physician diagnosis, hemangiomas or localized lymphangitis, etc.)
Age
From **18 years** old
Gender
Both

Phase
3
Groups that have been masked

- Participant
- Outcome assessor

Sample size
Target sample size: **163**
Randomization (investigator's opinion)
Randomized
Randomization description
The randomization program is done by an online system (http://www.randomization.com) with the permuted block randomization method. The length of each block is 4 patients, which will be made up for a total of 163 patients. When the randomization is done, each patient receives a code that, by it, will be recognized in the study. The code will consist of two numbers (in accordance with the randomization number) and four letters (corresponding to the first two letters of the name and the first two letters of the last name). Randomization numbers are assigned sequentially. The random chain will be created, and the anonymous codes associated with each patient are affixed to drug labels and pre-assembled on the recruitment sites. After the patient enters the study, the prescribed code will be announced to the site and the corresponding drug will be prescribed to the patient.
Blinding (investigator's opinion)
Double blinded
Blinding description
This study is a double-blind study. All treatment personnel and those involved in the study and patients are unaware of who is receiving which of the two drugs. Both study drugs have completely the same vial and packaging. The team that evaluates the study will be completely different from those involved in the treatment of the patients.
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics committee of Tehran University of Medical Sciences
Street address
The central building of Tehran University of Medical Sciences, Corner of Vesal-e Shirazi Ave., Keshavarz Blvd., Tehran
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Approval date
2018-10-28, 1397/08/06
Ethics committee reference number

IR.TUMS.VCR.REC.1397.553

Health conditions studied

1

Description of health condition studied
Head and Neck Squamous Cell Carcinoma (HNSCC)
ICD-10 code
ICD-10 code description

Primary outcomes

1

Description
Time to progression: is defined as the time from randomization until objective tumor progression.
Timepoint
Monthly up to 4 months, then every 4 months up to two years after randomization
Method of measurement
Checklist (month)

Secondary outcomes

1

Description
Progressive free survival; is defined as the time from randomization until objective tumor progression or death
Timepoint
Monthly up to 4 months, then every 4 months up to two years after randomization
Method of measurement
Checklist (month)

2

Description
Overall survival times; is defined as the time from randomization until death from any cause (in ITT population)
Timepoint
Monthly up to 4 months, then every 4 months up to two years after randomization
Method of measurement
Checklist (month)

3

Description
Overall response rate; is defined as the proportion of patients with tumor size reduction of a predefined amount and for a minimum time period (from the time of initial response until documented tumor progression)
Timepoint
Monthly up to 4 months, then every 4 months up to two years after randomization
Method of measurement
Proportion

4

Description
Safety outcome
Timepoint
Monthly up to 4 months, then every 4 months up to two years after randomization
Method of measurement
It will be measured based on side effects reports, the results of laboratory tests and vital signs. Side effects are assessed by CTC AE (v. 4.0) guideline of the American National Cancer Institute.

5

Description
Immunogenicity outcome
Timepoint
Before the administration of the drug and the first and second weeks, the first month, the twelfth month and the twenty-fourth month after the administration of the drug
Method of measurement
Measurement of anti-drug antibodies (ADA) and neutralising antibodies in 10 randomly selected individuals from each group.

Intervention groups

1

Description
Intervention group: Cetuximab bio-similar of Zistdaru Danesh Co. ® (100 mg/20 ml vial) starts with intravenous infusion one week before radiotherapy at an initial dose of 400 mg/m2 in 120 minutes. Then the weekly infusion of it is continued at a dose of 250 mg/m2 in 60 minutes up to 8 weeks. Before prescribing Cetuximab, Diphenhydramine (50 mg) or another H1 antagonist is prescribed. The administration of Cetuximab is discontinued in response to the allergy reaction of grade 3 and 4.
Category
Treatment - Drugs

2

Description
Control group: Erbitux of Merck® (100 mg/20 ml vial) starts with intravenous infusion one week before radiotherapy at an initial dose of 400 mg/m2 in 120 minutes. Then the weekly infusion of it is continued at a dose of 250 mg/m2 in 60 minutes up to 8 weeks. Before prescribing Erbitux, Diphenhydramine (50 mg) or another H1 antagonist is prescribed. The administration of Erbitux is discontinued in response to the allergy reaction of grade 3 and 4.
Category
Treatment - Drugs

Recruitment centers

1

Recruitment center

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Full name of responsible person
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Recruitment center

Name of recruitment center
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Name of recruitment center
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Sponsors / Funding sources

1

Sponsor
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Hooshmand Ilka
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First floor, No. 33, Ebn-e Yamin Ave., North Sohrevardi Ave., Tehran
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Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Zistdaru Danesh Co. ®
Proportion provided by this source
100
Public or private sector
Private
Domestic or foreign origin
Domestic
Category of foreign source of funding
empty
Country of origin
Type of organization providing the funding
Industry

Person responsible for general inquiries

Contact
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Assistant professor
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Sharing plan

Deidentified Individual Participant Data Set (IPD)
No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD
No more information.

Study Protocol
No - There is not a plan to make this available

Statistical Analysis Plan
No - There is not a plan to make this available

Informed Consent Form
No - There is not a plan to make this available

Clinical Study Report
No - There is not a plan to make this available

Analytic Code
No - There is not a plan to make this available

Data Dictionary
No - There is not a plan to make this available