

GOVERNMENT OF INDIA  
DEPARTMENT OF ATOMIC ENERGY  
**RAJYA SABHA**  
**UNSTARRED QUESTION NO.1121**  
TO BE ANSWERED ON 11.02.2021

**DEVELOPMENT OF RUTHENIUM-106 PLAQUE FOR TREATMENT OF  
EYE CANCER BY BARC**

1121      Shri Sambhaji Chhatrapati:

Will the PRIME MINISTER be pleased to state:

- (a) whether BARC has developed Ruthenium-106 Plaque for treatment of eye cancer which has been successfully tested at AIIMS, Delhi;
- (b) If so, the details thereof;
- (c) whether the technology developed is at par with international standards and is cost effective too; and
- (d) whether the technology developed would be made available to all the dedicated eye hospitals in the country or would it remain confined to a few hospitals only?

**ANSWER**

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND PRIME MINISTER'S OFFICE (Dr. JITENDRA SINGH):

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- (a) Yes, Sir.
- (b) Bhabha Atomic Research Centre (BARC), Mumbai has developed Ruthenium-106 Plaque for the treatment of eye cancers. The same has been successfully tested at three different hospitals including AIIMS, Delhi.

There are two different configurations (round and notched) for the treatment of eye cancers. Round plaque is used commonly; whereas notched configuration is suitable for treatment of eye cancers located adjacent to optical nerve. These two configurations can treat almost 90% eye cancer patients of our country. Each plaque can be used to treat 50 patients over a maximum period of two years.

(c) Yes, Sir. Doctors from AIIMS have certified that Plaque produced by BARC is at par with internationally available Plaque. Similar feedbacks have been received from Centre for Sight Hospital, Hyderabad and Sankara Eye Hospital, Bengaluru.

Ru-106 Plaques are produced using fission ruthenium in the purest form under stringent quality control measures as per the guidelines of Atomic Energy Regulatory Board (AERB) employing entirely indigenous technology. Quality control tests of each plaque are done through independent agencies.

Currently BRIT is supplying BARC developed Ru-106 Plaque for one tenth of the cost of imported Plaque. Thus, the indigenously developed Ru-106 plaque is highly cost effective and affordable.

(d) Yes, the Ru-106 Plaque produced using the technology developed indigenously could be made available to all the dedicated eye hospitals in the country after obtaining necessary regulatory clearances.

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