

NDZ 20医用电子直线加速器的设计、运行和临床疗效

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摘要 NDZ20医用电子直线加速器,属行波反馈型,采用改变工作频率、相位、磁控管输出功率及束流负载的方法调整能量,电子线能量从5—20MeV分七档,X线有10、15MV两档,并设有AFC,ARC,ADC等自动稳定频率、剂量率和照射野均匀度等控制系统,对一些主要部件达到较为先进的指标。该机运行已近两年,停机率86年与87年分别为2.14%和3.53%,剂量稳定性等一系列指标均达到或优于国家GBW4-81所规定指标,两年来治疗病人1366人,疗效显著。

关键词 [医用电子直线加速器](#) [行波反馈](#) [放射治疗](#)

分类号

THE DESIGN, OPERATION AND CURATIVE EFFECT OF NDZ 20 MEDICAL LINEAR ACCELERATOR

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Abstract NDZ 20 Medical linear accelerator is a kind of travelling wave feedback model. Its energy can be adjusted by changing frequency, phase, output rf-power of magnetron and beam loading. It has seven electron energy ranges between 5 to 20MeV and two energy ranges of x-ray (10 MV and 15 MV). Some advanced techniques such as AFC, ARC and ADC are used automatically to stabilize control system for frequency, dose rate and flatness of field. Some major components have advanced parameter. The machine has run for two years. The ratio of downtime was 2.14% in 1986 and 3.53% in 1987. All parameters have reached or surpassed the GBW 4-81 stipulated by the National Standards. In the last two years 1366 patients have been treated, the clinical cure effect was notable.

Key words [Medical linear accelerator](#) [Travelling wave feedback](#) [Radiation therapy](#)

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扩展功能

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