Eredeti közlemény

Koncepciók és trendek a méhnyakrák korszerű, komplex, nem sebészi kezelésében

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Összefoglalás

A méhnyakráknak, ami változatlanul a nők egyik leggyakoribb rosszindulatú megbetegedése világszerte, Magyarországon is magas az incidenciája. Kezelésében a fő terápiás modalitások a sugárterápia és a brachyterápia, amikkel az elmúlt 100 év során a kis kiterjedésű daganatok esetén kimagasló eredményeket értek el. A méhnyakrák nem-sebészi kezelés lehetőségeivel foglálkozó irodalmat áttekintve, megállapítható hogy az újonnan diagnosztizált betegek megközelítően 60%-a alkalmas elsődleges definitív rádio-kemoterépiára. Lokálisan előrehaladott betegségben a standard radio-kemoterapiát 45-50 Gy, CT alapú, 3D konformális külső sugárterápia (external beam radiotherapy, EBRT) és vele egyidejűleg alkalmazott heti egy alkalom cisplatin adása képezi. Az elmúlt évtizedekben kifejlesztett diagnosztikus és terápiás lehetőségek széles skálája bővíti a daganatok kezelésével és a kritikus szervek védelmével kapcsolatos ismereteinket. Ugyanakkor a high-dose-rate (HDR) brachyterápia (BT) kezelési technikája a nőgyógyászati daganatok területén évtizedeken keresztül változatlan volt és az egész világon kisebb különbségekkel, de egy intrauterin tandemből és egy pár hüvelyi ovoid-ból állt. A kezelés CT/MRI alapú tervezése mind a daganat, mind a rizikószervek esetében átalakította a pont meghatározásról térfogatbeli meghatározásra a dóziseloszlást. A sugárterápia tervezésében alkalmazott keresztmetszeti képalkotás forradalmi szerepe, a céltérfogat pontosabb meghatározása, az applikátor és az anatómiai viszonyok MRI-vel történt precízebb topográfiája, valamint a dóziseloszlás individuális optimalizálása a kontúrozás révén Európa-szerte sok sugárterápiás központot arra a döntésre késztetett, hogy áttérjenek a kép vezérelt barchyterápiára (image guided barchytterapy – IGBT), mert ezek a hatásos és eredményes eszközök a jobb kezelési eredmények biztosítékai. Ez a folyamat már megjelent a magyar onkológiai központokban is, azonban 92 %-ukban még a hagyományos 2D alapú technikával végzik a nőgyógyászati kezeléseket. Az EBRT és a BT legfontosabb tulajdonságainak kihasználásával a lokálisan előrehaladott daganatok komplex eseteinek legjobb kezelési stratégiájához az EBRT és az IGBT együttes alkalmazásának alapját további fejlesztések és a funkcionális képalkotás biztosítja a későbbiekben.

Kulcsszavak: képalkotó modalitások, javított céltérfogat meghatározás, képvezérelt brachyiterápia

Conceptions and trends in the modern, complex, non-surgical treatment of cervical cancer

Summary

Cervical cancer is still one of the most common cancers affecting women in the world with high incidence of the disease among women in Hungary. Radiotherapy (RT) and in particular brachytherapy (BT) have been major treatment modalities for small size cervical cancer for the last 100 years with outstanding results. An overview of the literature for the non-surgical treatment shows that approximately 60 % of the newly diagnosed patients are suitable for primary definitive radio-chemotherapy. Standard radio-chemotherapy for locally advanced disease is applied with a combination of concurrent chemotherapy with cisplatin and CT based 3D conformal External Beam RT (EBRT) to about 45-50 Gy. The large scale of imaging and treatment technical modalities, evolved during the last years, contribute to a better knowledge and management of the tumor and the critical organs. At the same time the delivery system, utilized for high-dose-rate (HDR) BT in cases of gynecologic tumors was worldwide unchanged for decades and consisted different types of an intrauterine tandem and a pair of vaginal ovoids. Treatment planning based on CT/MRI images has transformed the dose distribution from fixed dose points to target dimensions in case of the tumors and the organs at risk. The revolutionary role of modern cross-sectional imaging for the planning of radiotherapy, the improved target definition, the more precise topography for the application and the anatomy with MRI, the individual optimization of dose distribution by means of contouring had made many institutions in Europe to consider a switch to IGBT since these powerful and efficient tools lead to improved treatment results. This process turned up in some of the Hungarian radiation oncology centers, but 92 % of those are still delivering gynecological BT in the standard 2D technique. Further developments and functional imaging will provide the basis for employing complex combinations of EBRT and IGBT in complex cases of locally advanced cancer utilizing the best features of EBRT and BT to arrive at the best possible treatment plan.

Keywords: imaging modalities, improved target definition, image guided BT

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