

PROSTATE CANCER TREATMENT

CyberKnife VS SURGERY da Vinci

Q:

A

da Vinci® Surgical Prostatectomy

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CyberKnife® Prostate SBRT

Is this treatment experimental?

No
FDA Cleared in 2001*

No
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When were the first prostate treatments performed?

May 2000 (Frankfurt, Germany)

Oct 2002 (Seoul, Korea)

Is surgery involved?

Yes
Prostate is removed by surgical resection

No
Non-invasive high-dose irradiation of the prostate

Does treatment involve anesthesia?

Yes
Typically involves general anesthesia

No
No anesthesia is required and patients relax comfortably during treatment

Is treatment performed with robotic assistance?

Yes
Although, da Vinci cannot act on its own—treatment is still performed by a surgeon

Yes
The CyberKnife Robot automatically delivers a pre-planned treatment under expert supervision

Is a hospital stay required?

Yes
Typically 1-3 days of hospitalization

No
Treatment is performed in 4-5 outpatient visits

Are there risks of surgical complications?

Yes
Risks include infection, bleeding, cardiac, pulmonary complications and death

No
Surgery is not performed

Is a urinary catheter required after treatment?

Yes
Patients are sent home with a urinary catheter for 7-10 days after surgery

No
A catheter may be used during treatment but is not required once treatment is completed

Are there risks of other less serious urinary side effects?

Yes
Urinary stricture, retention, urinary tract infection in reported in 1-3% of patients

Yes
Low-grade urinary retention, urgency, or hesitancy reported in 2-10% of patients

Are there significant risks of serious rectal injury?

No
Serious rectal injury during surgery reported in only 0-2% of patients

No
Mild rectal bleeding, urgency noted in only 0-5% of patients

Is sexual function preserved in a majority of patients?

Yes

- There is a large reduction in sexual quality of life immediately after surgery and some recovery over the first year after surgery
- Current nerve sparing techniques preserve erectile function in 61-90% of men***

Yes

- Little effect on sexual quality of life immediately after treatment
- Current MRI targeted techniques preserve erectile function in 60-87% of men***

Is this treatment effective in treating prostate cancer?

Yes
93% PSA recurrence-free at 5 years

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* da Vinci® was FDA cleared in 2000 for prostate cancer surgery

**The CyberKnife system was FDA cleared in 2001 to be used to treat tumors, lesions and medical conditions anywhere in the body where radiation is indicated

***Because sexual quality of life is a complex, multiply determined construct, the estimates that are presented focus on erectile function per se. They were based on answers to patient questions that specifically addressed the frequency and/or quality of erections. For example, both the EPIC and the SHIM questionnaires ask patients whether they have erections sufficient for penetration, and how reliably. In other studies patients are asked directly about their ability to have an erection. There may be other studies that report results that fall outside of this range but that do not meet this criteria for construction of the stated ranges for this endpoint. *Comparative data in table is not from a head-to-head study but rather from published independent studies