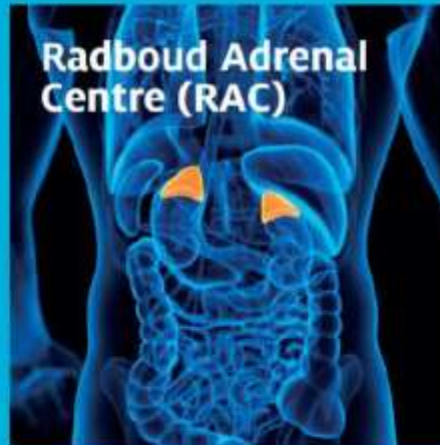


Bijnierchirurgie



Hans Langenhuijsen

V&VN Webinar 10 november 2020



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Conflict of Interest Disclosure

Declaration of interests:
Invited speaker for Astra Zeneca



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Onderwerpen

Het begin...

Expertisecentrum

Multidisciplinair

Operatie technieken

Innovaties

Take home



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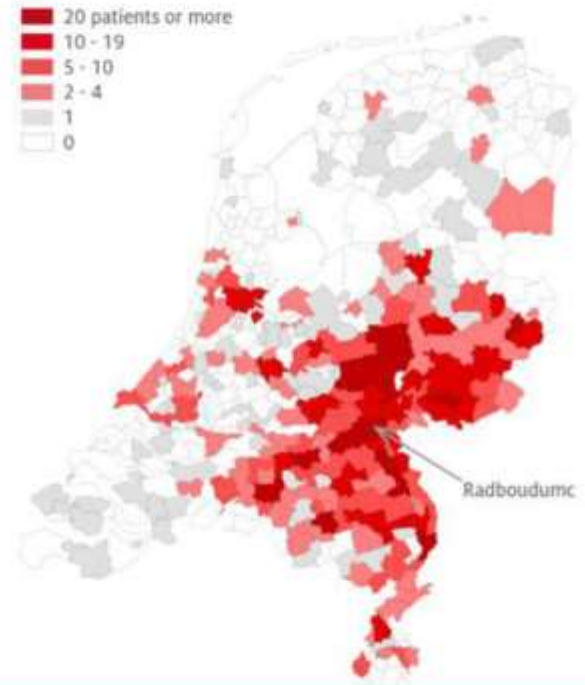
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Het begin...

- Endocriene tumoren
- Maligne tumoren



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Het begin...

**Radboud Adrenal Centre (RAC)
2010**



steering committee



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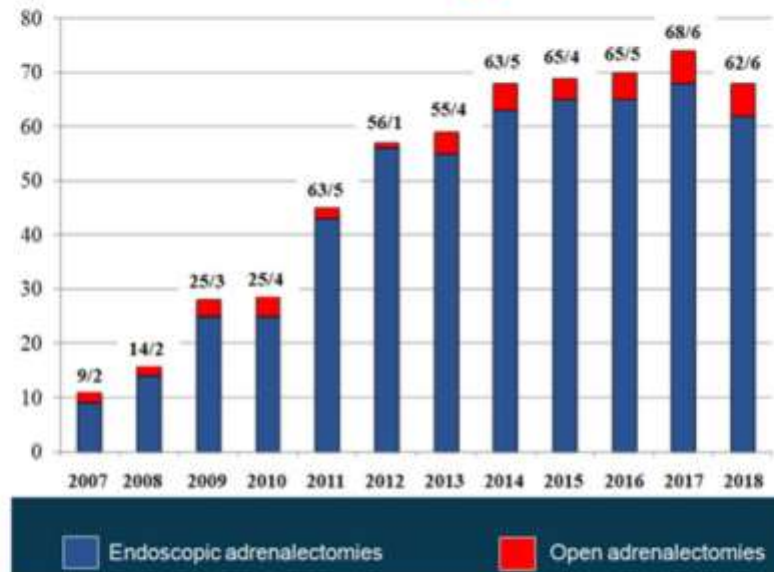
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Het begin...



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Expertisecentrum 2015



Radboudumc Expertisecentrum
voor Bijnierziekten



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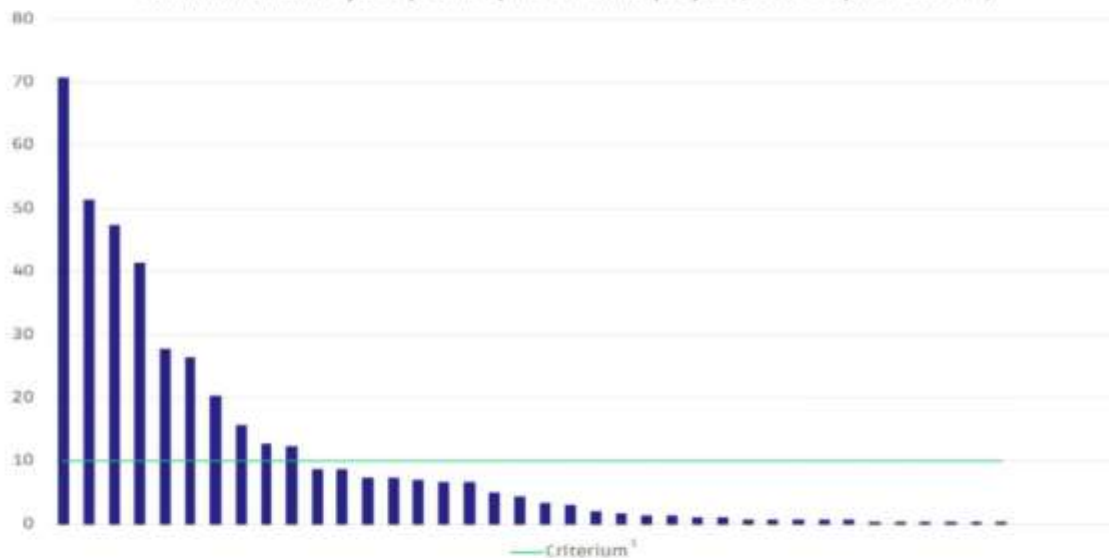


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Normering (aantal)

Gemiddeld aantal bijnieroperaties per ziekenhuis per jaar (over 2016, 2017 en 2018)



¹ Nederlandse Vereniging voor Heelkunde. Normering Chirurgische Behandelingen (versie 7.0), 2017.

BijnierNET



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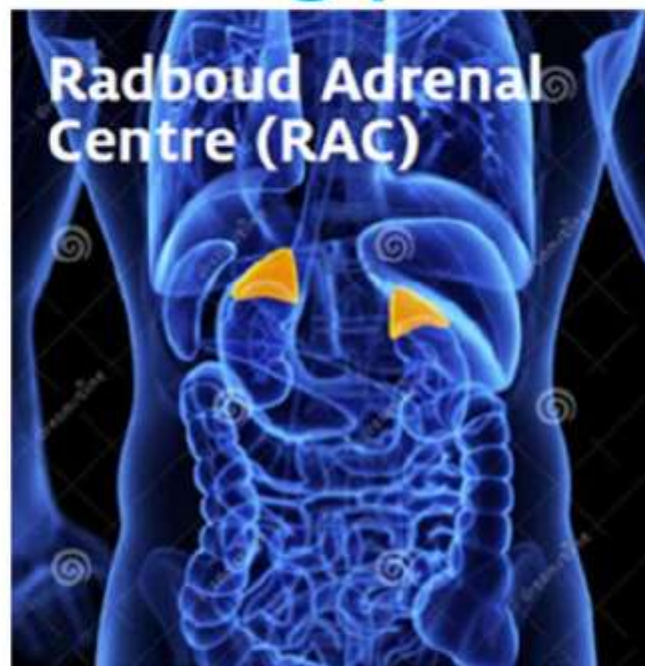
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Normering (kwaliteit)



Five year report 2010-2014



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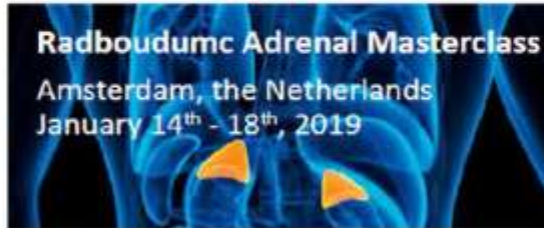
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Normering (kwaliteit)



Dear Colleagues,

On behalf of the organizing committee we cordially invite you to participate in the 1st International Radboudumc Adrenal Masterclass organized by the Radboudumc Center of Expertise for Adrenal Disorders in Nijmegen, the Netherlands. The course will take place from January 14-18, 2019 in Amsterdam, the Netherlands.

We aim to extend the big success of our previous masterclass in January 2017.

The Radboudumc Adrenal Masterclass includes state of the art lectures and workshops on clinical and pathophysiological aspects of adrenal diseases. It caters an audience of adult and pediatric endocrinologists, clinical nurses, intensivists and clinical chemists who are involved in the management of patients with adrenal disease.

The duration of the masterclass is 5 days, from Monday to Friday. All lectures are given in the English language. Internationally and internationally experts contribute to an intensive program that encompasses all major adrenal disorders: hyper- and hypoadrenalism, congenital adrenal hyperplasia, incidentaloma, adrenocortical cancer, pheochromocytoma, paraganglioma and primary aldosteronism. Apart from overview lectures on theoretical and practical issues, there will be interactive sessions on patient cases with challenging diagnostic and therapeutic issues. Participants are encouraged to present their own cases. Special attention will be paid to indications and interpretation of testing, including imaging procedures. In addition, essential and practical methodological aspects of specific procedures such as adrenal venous sampling and minimally invasive adrenal surgery are demonstrated and discussed.

We very much look forward to meeting you at our third Radboudumc Adrenal Masterclass!



Dr. Henri Timmers (chair)
Dr. Jaap Deinum
Dr. Wido Dierckx
Dr. Hans Jansenhuijzen

Prof. dr. Jacques Linders
Prof. dr. Pieter Tuijthof
Prof. dr. Jochem van Erpecum



Radboudumc
university medical center



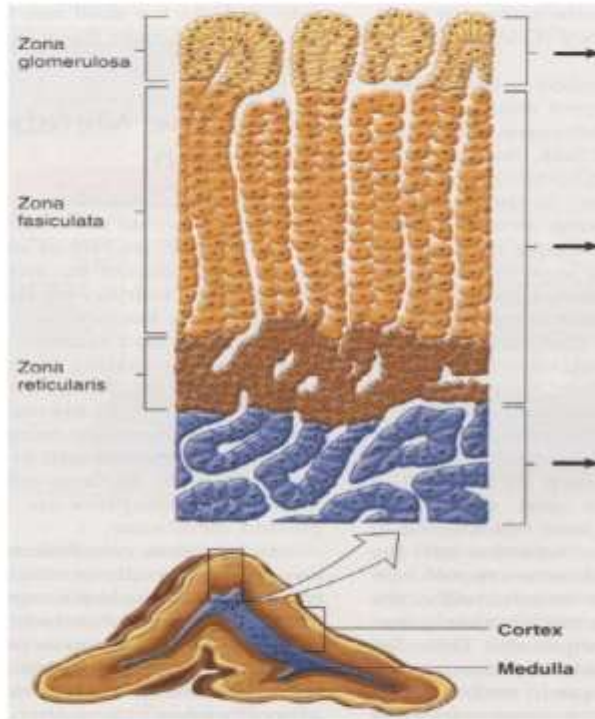
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Multidisciplinaire samenwerking

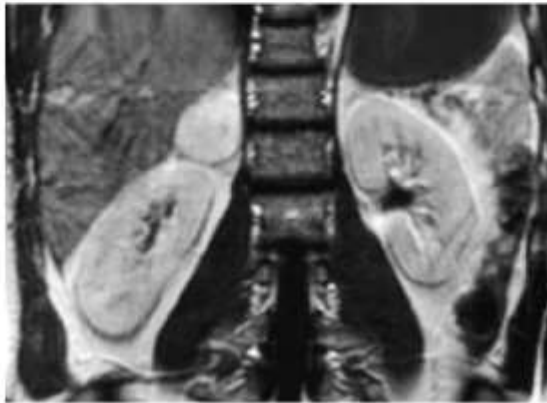


Aldosterone
mineralocorticoid → **Primary aldosteronism**

Cortisol
glucocorticoid → **Cushing's syndrome**

Adrenaline (epinephrine)
Noradrenaline (norepinephrine)
catecholamines → **Pheochromocytoma**

Multidisciplinaire samenwerking



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Endo-ERN
European Reference Network
on Rare Endocrine Conditions

Operatietechnieken

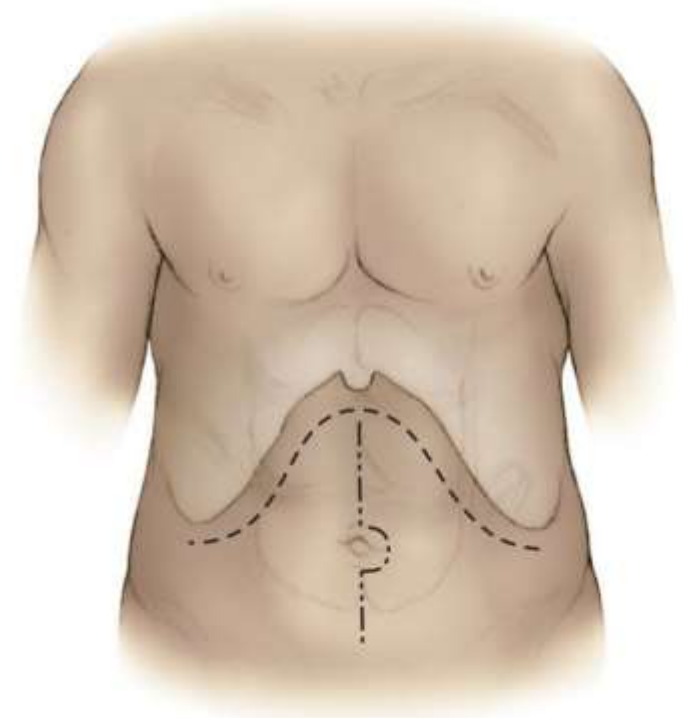
Overgrote deel kan laparoscopisch

Sinds 1993!

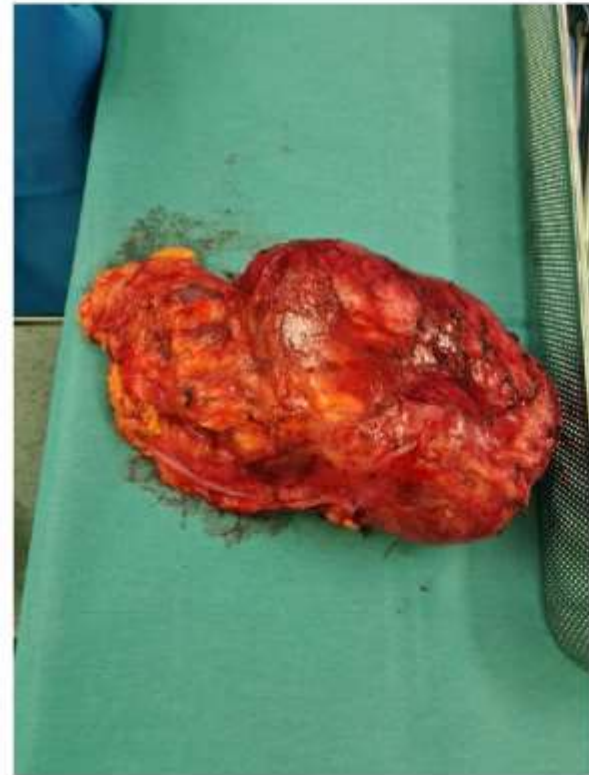
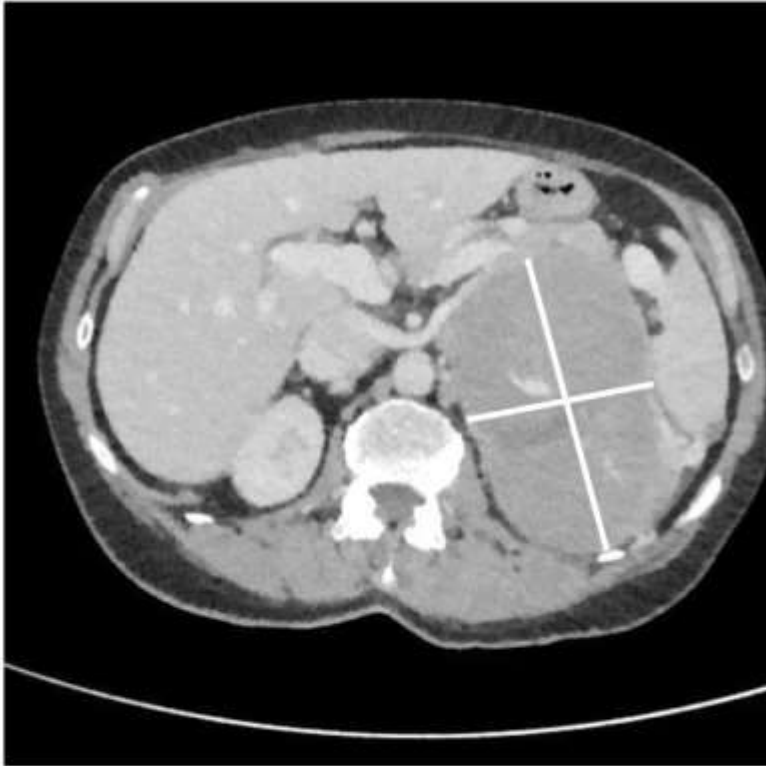
1. Endocriene tumoren
2. Maligne tumoren <6 cm (ACC)
3. Metastasen



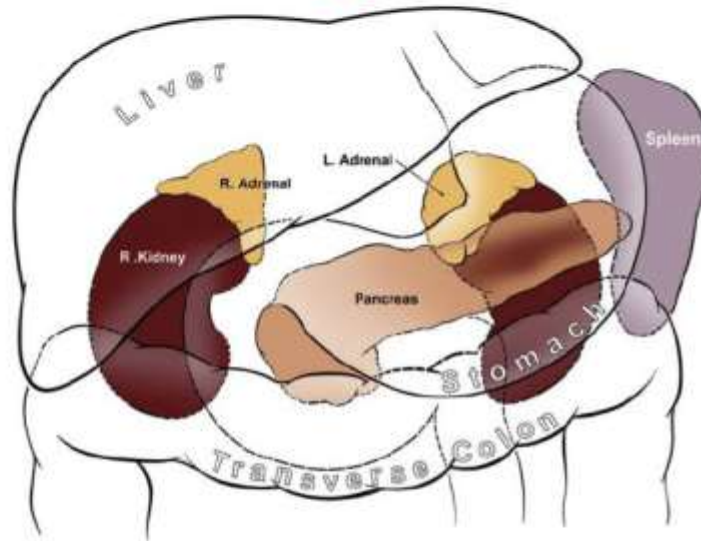
Operatietechnieken



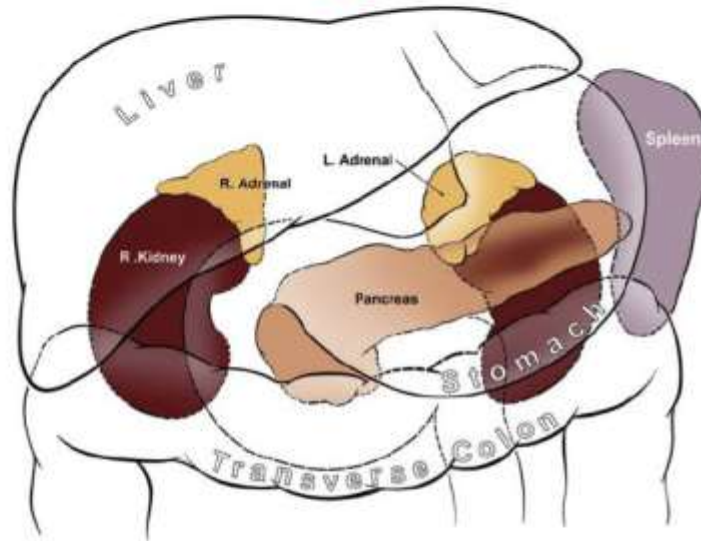
Operatietechnieken



Operatietechnieken



Operatietechnieken



Retroperitoneoscopische adrenalectomie

Voordeel:

Vermijd intraperitoneale organen
Eerdere buikchirurgie
Minder hemodynamische complicaties?
Snel herstel (peristaltiek)
Bilateraal

Nadeel:

Minder ruimte
Anatomische herkenning
Patient positionering (pulmonaal, conversie)
BMI



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Evaluating the learning curve for retroperitoneoscopic adrenalectomy in a high-volume center for laparoscopic adrenal surgery

A. van Uitert¹ · F. C. H. d'Ancona¹ · J. Deinum² · H. J. L. M. Timmers² · J. F. Langenhuijsen¹

Table 1 Descriptive statistics of patients undergoing laparoscopic adrenalectomy

<i>n</i>	290
Sex (M/F)	141/149
Age (years) ^a	51 (13)
Body mass index (kg/m ²) ^a	28 (5)
Indication of surgery	
Prim. aldosteronism	141
Pheochromocytoma	67
Cushing syndrome	44
Non-functioning adenoma	18
Metastasis	9
Adrenocortical carcinoma	3
Other	8
Surgical approach	
Transperitoneal laparoscopic	177
Posterior retroperitoneoscopic	113
Side	
Left	155
Right	112
Bilateral	23
Diameter of tumor (cm) ^a	2.8 (2.2)

^a Mean (±SD)



Retroperitoneoscopische adrenalectomie

Table 2 Matched cohort analysis unilateral TLA versus RPA after 40 patients

	Unilateral TLA (<i>n</i> = 38)	Unilateral RPA (<i>n</i> = 64)
Blood loss (cc) ^a	10 (45)	5 (5) ^b
Operating time (min) ^a	90 (39)	57 (26) ^b
Hospital stay (days) ^a	4 (2)	3 (1) ^b
Post-op complications		
Clavien I–II	3	5
Clavien III	0	0
Clavien IV–V	0	1

^a Median (IQR)
^b *p* < 0.05

•Bilateral surgery: BL 40 vs 5 cc (*p*<0.05); OT 236 vs 117 min (*p*<0.05)

Nu standaard bij benigne tumor <7 cm, BMI<35!



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Ergonomische voordeel
Articulatie instrumenten
Dexterity en 3D beeld
Fluorescentie mogelijkheden



<https://www.youtube.com/watch?v=uu1FCJEpE5A>

Innovaties

ERUS19 | 11-13 September 2019
Lisbon, Portugal

The Meeting Registrations Scientific Programme News Acknowledgements ERUS-ORUS20



VE24

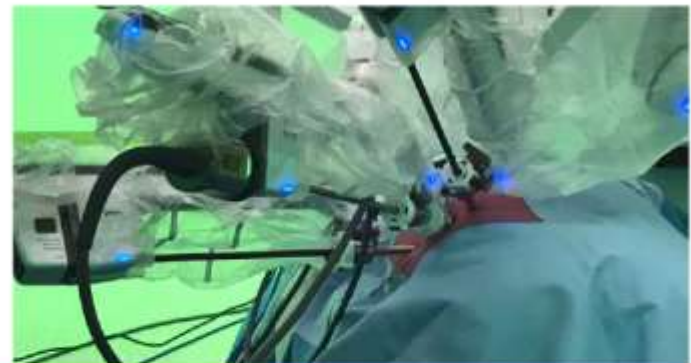
Robot-assisted posterior retroperitoneal adrenalectomy. A step-by-step procedure

By: Dijkstra S, Van de Wiel E, Langenhuijsen JF

Institutes: Radboud University Medical Center, Dept. of Urology, Nijmegen, The Netherlands

Casus	leeftijd	geslacht	BMI	Tarsen- grootte (mm)	zijde	Diagnose	U- & B- tijd (min)	OT (min)	U- & B- tijd (min)	Grootte bloed- vessels (ml)
1	56	V	25	30	Links	PHA	3	143	60	5
2	60	V	25	20	Links	PHA	3	97	59	5
3	54	V	20	17	Links	PHA	3	71	43	10
4	65	V	26	21	Links	Cushing	3	113	65	5
5	59	M	26	24	Links	NPA	2	105	78	10
6	31	M	20	21	Links	PHA	6	78	50	5
7	51	V	21	11	Links	PHA	2	75	47	5
8	49	V	26	21	Rechts	Cushing	2	116	65	5
gemiddeld	53		23,6	20,6			3	99	58	6,2

BMI = body mass index; CT = console tijd; M = man; NPA = niet producerend adenoom; T = operatietijd;
PHA = primair hyperaldosteronisme; V = vrouw



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'Personalized surgery'

Open chirurgie en minimaal invasief

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Dank voor uw aandacht !

