

**Table 1 : Report some metastasis directed therapy in visceral oligometastatic prostate cancer (January 2010- January 2020).  
Oligometastatic is defined by a limited number of extra-pelvic metastatic lesions ( $\leq 3$ -5).**

Authors	Initial tumor characteristics	Primary tumor treatment	Progression	Non-visceral Metastase	Visceral Metastases and clinical features	Metastases management (SBRT/surgery)	Systemic treatment following VM diagnosis	- PSA Reponse - PFS - Systemic treatment - Outcome
Tilmans et al.2020 (1)	67 Years PSA: unknown TNM: unknown Gleason: unknown	- RP - 8 years later: salvage prostatic EBRT + ADT	Metastatic Progression on ADT 18 months after onset of EBRT-ADT	None	- 1 Liver metastasis - PSA: 32 ng/ml - No neuroendocrine	- Extended left hepatectomy	- ADT - Docetaxel (6 courses every 3 weeks) before hepatectomy	- PSA < 1 ng/ml - PFS = 1 years - Enzalutamide - OS = 32 months
Ishizaki et al. 2019 (2)	63 years PSA: 9,95 ng/ml T4N1M0 Gleason 5+5	- Neo adjuvant ADT + Docetaxel (6 courses every 3 weeks) - Prostatic EBRT	Metastatic progression on ADT 22 months after docetaxel	none	- 1 cerebellar metastasis - PSA: 1,34 ng/ml - No neuroendocrine	- Surgical resection + WBRT	- unknown	- PSA < 1 ng/ml - PFS= 23 months - No systemic treatment - OS= 23 months

Kawai et al.2017 (3)	55 years PSA: unknown TNM: unknown Gleason:unknown	- RP - Adjuvant ADT - Salvage EBRT 11 years later + ADT (not interrupted since diagnosis)	- metastatic progression on ADT (never interrupted) 4 years after EBRT	none	- 1 liver metastasis - PSA = 13.77 ng/ml - No neuroendocrine	- Surgical segmentectomy	None	- PSA= 0.54 ng/ml - PFS: 9 months - Docetaxel - OS: NA
Chang et al.2017 (4)	80 years PSA: unknown TNM: unknown Gleason 4+4	-Prostatic EBRT	Metastatic progression 3 years after EBRT	none	-right testicular metastasis and 1 cerebral metastasis PSA: 319ng/mL - No neuroendocrine	- Orchiectomy and - 5 fractions of stereotactic brain radiotherapy	None	- PSA decreased to undetectable - PFS=NA - OS = NA
Bonetta et.al 2017 (5)	58 years PSA: 7.6 ng/ml pT3bN0M0 Gleason 4+5	- RP - Adjuvant RT - ADT declined by the patient	Metastatic Progression 32 months after RT	none	- left testicular metastasis - PSA: 0.61 ng/mL - No neuroendocrine	- Orchiectomy	None (ADT declined by the patient)	- PSA decreased to 0.01 ng/ml. - PFS $\geq$ 5years - No new systemic treatment - OS $\geq$ 5years
Wang et al. 2016 (6)	68 years PSA: 7.6 ng/ml pT3aN0M0 Gleason 3+4	-EBRT+ 18-month ADT	Metastatic Progression 6 years after end of ADT	none	- 1 liver metastasis - PSA: 48 ng/ml - No neuroendocrine	- Left hepatic lobectomy	ADT	- PSA decreased to < 0.01 ng/ml - PFS $\geq$ 1 years - No new systemic treatment - OS $\geq$ 1years

Peres Gago et al. 2016 (7)	55 years PSA: 4.5 ng/ml pT3aNX Gleason 4+3	- RP - Salvage EBRT 2 years later (No ADT)	Progression 22 months after EBRT	none	- Lung nodules - PSA: NA - No neuroendocrine	- Surgical resection	ADT	- PSA decreased to < 0.01 ng/dl - PFS $\geq$ 4years - No new systemic treatment - OS $\geq$ 4 years
Wallis CJD Et al 2011. (8)	46 years PSA: 14,7 ng/ml pT3aN0M0 Gleason 4+5	- Neo-adjuvant ADT - RP - Salvage EBRT 6 years later (No ADT)	Metastatic Progression 6 months after EBRT	None	- 3 lung nodes - PSA: NA - No neuroendocrine	- Surgical resection	Unknown	- PSA decreased to 0.28 ng/ml - PFS: 9 months - No new systemic treatment - OS > 1 years
Kwon et al. 2011 (9)	66 years PSA: unknown pT3N0M0 Gleason 4+5	- RP - Adjuvant EBRT + ADT	Metastatic Progression on ADT 4 months after EBRT	None	- Testicular metastasis - PSA: 0.347 ng/ml - No neuroendocrine features	- Orchidectomy	ADT continuation	- PSA decreased to 0.03 ng/ml - PF=: NA - OS= NA
Janssen et al .2010 (10)	68 years PSA: 7,66 ng/ml pT3bpN0M0 Gleason 3+3 Cribriform feature	- Neo adjuvant ADT - RP - Salvage EBRT 2.5 years later	Metastatic Progression 1 month after end of RT	None	- Testicular metastasis - PSA: 3.08 ng/ml - No neuroendocrine features	- Orchiectomy	None	- PSA decreased to 0.07 ng/dl - PFS $\geq$ 2years - No new systemic treatment - OS $\geq$ 2years

EBRT: External Beam Radiotherapy; RP: Radical Prostatectomy; HT : hormone therapy; ADT: androgen deprivation therapy; PND: pelvic node dissection; LFT: liver function test; Pca: prostate cancer; PFS: Progression Free Survival; WBRT: Whole Brain Radiotherapy ; OS: Overall survival

## REFERENCES

- 1- G Tilmans, Julie N, Mina K, Thibaud S,. Solitary prostate cancer liver metastasis: an exceptional indication for liver resection. Acta Chirurgica Belgica.2020
- 2- Fumio Ischizaki, Ryo M, Kazutoshi Y, Takashi K, Tsutomu Nishiyama, and Yoshihiko Tomita. Solitary brain metastasis from prostate cancer after multimodality treatment: A case report. Urol Case Rep. 2019
- 3- Hironari K, Hiroaki S, Masaru K, Taro S, Kenei F, Katsuhiko Y. Successful resection of a solitary metastatic liver tumor from prostate cancer 15 years after radical prostatectomy: a case report. Surgical Case Reports (2017) 3:17
- 4- Jeremy Chang, Brian K, Neil P, Nicolas V, Scott D, Ida W and Elaine. Prostate adenocarcinoma metastases to the testis and brain: case report and review of the literature. Oxford Medical Case Reports, 2017;8, 142–144
- 5- Alberto B, Daniele G, Silvia P, Gianni C, Sarah G, Chiara P, Giandomenico R. Isolated Testicular Metastasis from Prostate Cancer. American Journal Case Report, 2017; 18: 887-889
- 6- S C. Wang, Lezah P, Syed M. Isolated Hepatic Metastasis from Prostate Carcinoma. Urology Case Reports Volume 10, January 2017, Pages 51-53
- 7- Joaquim P Gago, Gabriela C, Jorge D and Ana O. Pulmonary metastasis as sole manifestation of relapse in previously treated localized prostate cancer: three exceptional case reports. ecancer 2016, 10:645
- 8- CJD Wallis; John C., Larry G. The role of resection of pulmonary metastases from prostate cancer: a case report and literature review. Can Urol Assoc J 2011;5(6): E104-E108
- 9- Se Yun Kwon, Hyun Su J, Jung G, Seock Hwan, Tae Gyun Kwon, Tae-Hwan Kim. Solitary Testicular Metastasis of Prostate Cancer Mimicking Primary Testicular Cancer. Korean J Urol 2011; 52:718-720
- 10- Stefan Jansen, Joachim B, Aristotelis G, Frank B. Solitary Testicular Metastasis from Prostate Cancer: A Rare Case of Isolated Recurrence after Radical Prostatectomy. ANTICANCER RESEARCH 30: 1747-1750 (2010)

