

Contact X-ray Radiotherapy (Papillon) to improve complete response and organ preservation in early rectal cancer

Clinical solid tumor oncology

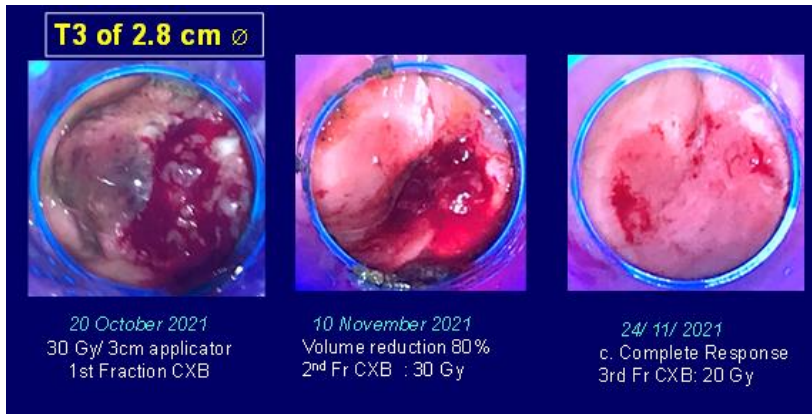
C. Picardi^{1,2}, F. Caparrotti³, M. Montemurro^{1,2}, F. Ris³, D. Christen¹, L. Lestrade², O. Matzinger^{2,3} (¹Zürich, ²Genolier, ³Geneva)

Presenter: C. Picardi^{1,2}

Background and Objective

Non operative management of rectal cancer is gaining popularity. Radiotherapy (RT) plays a major role in terms of local control, and achieves complete tumor sterilization with dose escalation.

Contact x-ray RT, also known as Papillon, is a unique treatment modality using low energy X-ray RT delivered directly to the tumor. We report the results of 19 selected patients that were offered Papillon Boost in addition to RT or RCT in order to achieve planned Organ Preservation (OP).



Results

19/19 reached a complete clinical response at first assessment (at 6 weeks) allowing OP, and none experienced local or distant relapse (median follow-up: 27 months).

So far 7 patients achieved long term (> 3 years) OP. Response to treatment is evaluated every 3 months (MRI, rectoscopy, DRE, ± endosonography).

Toxicity was very mild (≤ G2). There were no treatment related deaths.

Baseline Patient, Disease and Treatment Characteristics

	No.
Median age (range), years	70 (49- 91)
Sex	
Male	16
Female	3
AJCC 8 stage	
I	9
II	6
III	3
IV	1
T classification	
T1	3
T2	9
T3	6
T4	0
N classification	
N0	16
N1	2
N2	1
M classification	
M0	18
M1	1
EBRT	
Alone	3
With CCT	16
CRT dose, Gy	
90	9
< 90	10

Abbreviations: AJCC, American Joint Committee on Cancer
EBRT, external beam radiotherapy; CCT, concomitant chemotherapy
CXB, contact x-ray radiotherapy

Conclusion

Our experience with Papillon shows in our selected patients a complete local response achieving long-term OP. This unique treatment modality may help future patients with early stage rectal cancer benefit from low toxicity RT dose escalation to achieve complete local response and avoid surgery.

Why Papillon Works?

