

Case	Sex	Age	Histology	FU (months)	FU (event)	Mutated Gene (NGS panel)
AT1	M	72	ATC	NA	NA	<i>GNAS, TP53</i>
AT2	M	58	ATC	NA	NA	<i>TERT</i>
AT3	M	67	ATC	78	DOC	<i>NMD</i>
AT5	F	84	ATC	NA	NA	<i>NRAS</i>
AT6	F	80	ATC	38	DOD	<i>PTEN</i>
AT9	F	70	ATC	2	DOD	<i>PIK3CA, PTEN</i>
AT10	F	73	ATC	195	DOC	<i>TERT, TP53</i>
AT13	F	63	ATC	2	DOD	<i>IDH1, PDGFRα, TERT</i>
AT14	F	65	ATC	1	DOD	<i>TERT, TP53</i>
AT15	M	47	ATC	23	DOD	<i>TERT, TP53</i>
AT16	F	74	ATC	NA	NA	<i>NRAS, TERT, TP53</i>
AT17	M	80	ATC	3	DOD	<i>TERT, TP53</i>
AT18	F	82	ATC	2	DOD	<i>BRAF</i>
AT19	M	78	ATC	5	DOD	<i>IDH1, TP53</i>
AT20	M	74	ATC	10	DOD	<i>PIK3CA, TERT, TP53</i>
AT21	F	56	ATC	2	DOD	<i>GNAS, TERT</i>
AT22	F	63	ATC	NA	AWD	<i>TERT, TP53</i>
AT23	F	84	ATC	3	DOD	<i>GNAS, TERT, TP53</i>

Supplementary Table 2. ATC_ Patient Features

Abbreviations: C-PTC- Classical PTC, TCV-PTC-Tall Cell Variant PTC, FV- Follicula Variant-PTC, DOD-Dead of Disease, AWD-Alive with disease, NED- no evidence of disease, DOC-dead of other causes, NA- not available, NP- NMD: no mutations detected,