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APPENDIX

APPENDIX A

American Joint Committee for Cancer

Staging System for Nasopharyngeal Carcinoma

Primary Tumor (T)

Tx Primary cannot be assessed

Tis Carcinoma in situ

T0 No evidence of primary tumor

T1 Tumor limited to one subsite of the nasopharynx

T2 Tumor invades more than one subsite of the nasopharynx

T3 Tumor invades nasal cavity and oropharynx or both

T4 Tumor invades skull or cranial nerves or both

Regional Lymph Nodes (N)

Nx Regional lymph nodes cannot be assessed

N0 No regional lymph node metastasis

N1 Metastasis in a single ipsilateral lymph node, 3 cm or less in greatest dimension

N2 Metastasis in a single ipslateral lymph node, more than 3 cm but not more than 6 cm in greastest dimension; or in bilateral or contralateral lymph nodes, none more than 6 cm in greatest dimension.

N2a Metastasis in a single ipsilateral lymph node more than 3 cm but not more than 6 cm in greatest dimension

N2b Metastasis in multiple ipsilateral lymph nodes, none more than 6 cm in greatest dimension

N2c Metastasis in bilateral or contralateral lymph nodes, none more than 6 cm in greatest dimension

Distant Metastasis (M)

Mx Presense of distant metastasis cannot be assessed

M0 No distant metastasis

M1 Distant matastasis

Stage Grouping

0	Tis	N0	M0
I	T1	N0	M0
II	T2	N0	M0
III	T3	N0	M0
	T1	N1	M0
	T2	N1	M0
	T3	N1	M0
IV	T4	N0	M0
	T4	N1	M0
	Any T	N2	M0
	Any T	N3	M0
	Any T	Any N	M1

APPENDIX B

BUFFERS AND REAGENTS

1. 1M Tris (pH 7.0)

Tris base	121.1	g
dH_2O	700	ml.

* adjust the pH to 7.0 by adding conc. HCl

Adjust volume to 1.0 litre with dH_2O, and sterilize by autoclaving.

2. 0.5 M EDTA (pH 8.0)

Disodium ethylenediamine tetraacetate. $2H_2O$	186.6	g
dH_2O	700	ml.

* adjust the pH to 8.0 with conc. NaOH

Adjust volume to 1.0 litre with dH_2O and sterilize by autoclaving.

3. 10M Ammonium acetaet (CH_3COONH_4)

Ammonium acetate	770	g
dH_2O	700	ml

Adjust the volume to 1.0 litre with dH_2O and sterilize by filtration

4. 10X TBE buffer

Tris base	104	g
Boric acid	55	g
0.5 M EDTA	40	ml.

Adjust the volume to 1.0 litre with dH_2O and filter through Whatman paper no.1

5. 6M NaCl

NaCl	350.64	g
dH_2O	600	ml.

Adjust the volume to 1.0 litre with dH_2O and sterilize by autoclaving.

6. 25%Ammonium Persulfate : $(NH_4)_2S_2O_8$

Ammonium persulfate	2.5	g
add dH_2O to	4	ml.

* store at 4°C

7. Proteinase K (stock solution)

Dissolve Proteinase K	20	mg
dH_2O	1	ml.

* store at -20 °C

8. 10% Sodium dodecyl sulfate (SDS)

SDS (eletrophoresis grade)	100	g
dH_2O	870	ml.

*adjust the pH to 7.2 by adding conc. HCl (a few drops)

Adjust the volume to 1.0 litre with dH_2O

9. Digestion buffer

100 mM NaCl

10 mM Tris-Cl (pH 8.0)

25 mM EDTA (pH 8.0)

0.5% SDS

0.1 mg/ml PK*

* PK is labile and must be added fresh with each use.

10. $T_{10}E_{10}$

1 M Tris	1	ml
0.5 M EDTA	2	ml
add dH_2O to	97	ml

11. $T_{20}E_5$

1 M Tris	2	ml
0.5 M EDTA	1	ml
add dH_2O to	97	ml

12. $T_{10}E_1$

1 M Tris	1	ml
0.5 M EDTA	0.2	ml
add dH_2O to	100	ml

13. Loading dye

0.025%	Xylene cyanol FF	2.5	mg
0.025%	Bromophenol blue in dH_2O	2.5	mg
98%	Deionized formamide	9.8	ml
10 mM	EDTA	0.2	ml

14. 6% Denaturing gel

Urea (utrapure)	25.2	g
38% acrylamide/ 2% bisacrylamide	9	ml
10 X TBE	6	ml
adjust the volume to 60 ml with dH_2O		
* TEMED	60	µl
* 10% $(NH_4)_2S_2O_8$	0.6	ml

* Must be added fresh just before use.

APPENDIX C

List of STRP markers for alleotyping study

Chromosome arm	Loci	Location	Size(bp)
1P	D1S243	1p36.1-36.2	142-170
1Q	D1S103	1q31-q32	82-102
2P	D2S131	2p	229-247
	D2S405	2p	275
2Q	D2S102	2q33-q37	138-162
3P	D3S1038	3p25VHL	115
	D3S192	3p25VHL	96-118
	D3S1600	3p14	182-198
	D3S966	3p21.3	147
	D3S1480	3p	87-125
	D3S1255	3p25VHL	150
	D3S1217	3p13-14	170
	D3S1481	3p14	120
	D3S1214	3p21.3	170
3Q	GLUT2	3q26.1-q26.3	184-222
	D3S1744	3q23-q24	170
4P	D4S174	4p11-p15	175-195
	D4S1599	4q	142-156
4Q	D4S1554	4q11-q35	184-208
	D4S1625	4q	194
5P	D5S392	5p	83-117
	D5S819	5p	281
5Q	D5S82	5q14-21	169-179
	D5S346	5q21-q22	96-122
6P	D6S309	6p	254-272
	D6S477	6p	238-280
6Q	IGF2R	6q27	158-166
	D6S503	6q	270
	D6S292	6q	141-161
7P	D7S517	7p	239-257
	D7S460	7p	234
7Q	D7S486	7q31	133-146
	D7S821	7q	281
8P	NEFL	8p	137-147
	D8S87	8p21.3-p22	170
	D8S110	8p	281
8Q	D8S88	8q22	76-100

List of STRP markers for alleltyping study (continue)

Chromosome arm	Loci	Location	Size(bp)
8Q	MCC	8q24	87-125
9P	D9S169	9p21	259-275
	D9S165	9p	250
	IFNA	9p22	130
9Q	D9S51	9q	135-159
	D9S290	9q34	148-160
	ABLI	9q34	130
10P	D10S89	10p11.2-pter	140
	D10S249	10p	118-134
10Q	D10S169	10q11.2-qter	99-117
	D10S677	10q	271
11P	WTI	11p13	150
	D11S554	11p	234
11Q	D11S534	11q13	228-244
	D11S956	11q13	247-308
	D11S976	11q23	130
	D11S897	11q23	98-120
	INT2	11q13.3	161-177
12P	D12S341	12p	114-130
	D12S62	12p	194
12Q	MFD133	12q	161-175
	D12S86	12q	124-160
13Q	D13S284	13q13RBI	197-227
	D13S119	13q	197-213
14P	TCRD	14q11.2	118-128
	D14S118	14q	230
15Q	GABRB3	15q11-13	181-201
	D15S131	15q	238-274
	D15S123	15q	191-207
16P	D16S287	16p13.11	201-225
	D16S748	16p13.2-13.13	230
16Q	D16S511	16q22-24	182-222
	D16S539	16q24.2-q24.3	194
17P	D17S520	17p12	130-144
	D17S945	17p13	186-208
	D17S1176	17p	95-109
17Q	KRT9	17q21NMEI	182-198
	NFI	17q11.2	234
18P	D18S59	18pter-p11.22	148-164
18Q	D18S35	18q21.2-q21.3	104-124

List of STRP markers for allelotyping study(continue)

Chromosome arm	Loci	Location	Size(bp)
18Q	DCC	18q21.1	106-160
	D18S535	18q	150
19P	D19S221	19p	191-211
19Q	D19S412	19q	89-113
	D19S246	19q	270
20P	D20S470	20p	280
	D20S27	20p12	128-138
20Q	D20S17	20q12-q13.1	130-140
21Q	D21S258	21q	184-206
	D21S11	21q21	271
22Q	IL2RB	22q	149-163
	D22S446	22q11NF2	260

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