

SUPPLEMENTARY MATERIAL.

à Descriptive statistics of FOS features, shape features and texture features

Supplemental Table 3 Overview of the non-normalized descriptive statistics of FOS features, shape features and texture features

Otsu Segmentation																										
Early Fatty Streak Development																										
	area	Circularity	Perimeter	Extact	Entropy	number of objects	skewness	kurtosis	standard deviation	integrated density	autocorrelation	cluster prominence	cluster shade	contrast	correlation	difference entropy	disimilarity	energy	measure of correlation1	measure of correlation2	max probability	sum average	sum entropy	sum of squares variance	sum variance	homogeneity
Minimum	11264	0.03556	920.2	0.2522	2.929	380	0.01209	0.0001014	0.06845	562802	1	0.0002409	0.000888	-0.0001554	0.0000997	0.000088	0.1581	0.2182	-2	0.04815	0.3636	2	0.00103	0.0000356	0.0001262	0.705
25% Percentile	82651	0.1193	2318	0.4812	4.697	1947	0.0575	0.0009744	0.4495	3823939	2.308	61.79	9.451	0.2747	0.7032	0.5609	0.2168	0.2752	-1.999	0.975	0.5064	2.726	1.065	0.6515	2.361	0.7905
Median	111979	0.1742	2817	0.5649	5.175	2695	0.2608	0.007087	0.4819	3848786	4.23	287.3	31.57	0.6642	0.7746	0.8288	0.3998	0.3731	-1.999	0.9941	0.5996	3.438	1.511	1.625	5.733	0.8429
75% Percentile	145467	0.2491	3315	0.6634	5.675	3471	0.555	0.03533	0.4969	12139616	8.778	997.8	82.92	1.492	0.8447	0.9419	0.6063	0.5235	-1.999	0.998	0.5996	4.633	1.846	4.414	16.34	0.8997
Maximum	260910	0.7869	5022	0.9953	6.887	20853	5.128	16.7	0.81	26399145	24.39	2166	170.1	3.88	0.9576	1.388	1.076	0.9998	-1.983	0.9995	0.9999	7.96	2.26	9.953	37.44	1
Range	249646	0.7514	5002	0.7431	3.958	20473	5.116	16.7	0.4315	27836463	23.39	2166	170.1	3.88	0.9578	1.387	1.076	0.8417	0.01686	0.9514	0.6363	5.96	2.259	9.953	37.44	0.295
Mean	117022	0.202	2856	0.5732	5.128	2020	0.5941	0.5889	0.4576	8501043	6.306	558.1	47.96	0.9456	0.747	0.7771	0.4173	0.4315	-1.999	0.931	0.6246	3.808	1.396	2.656	9.677	0.8498
Std. Deviation	48416	0.1154	788.4	0.1343	0.7577	2262	0.977	2.334	0.06692	651043	5.34	602.4	45.73	0.8572	0.1571	0.3446	0.259	0.2195	0.001752	0.1926	0.1649	1.415	0.5855	2.589	9.588	0.07591
Std. Error of M	3325	0.007922	54.15	0.009223	0.05204	155.3	0.0671	0.1603	0.004596	447351	0.3668	41.38	3.14	0.05887	0.01079	0.02667	0.01779	0.01508	0.0001203	0.01323	0.01133	0.09717	0.04021	0.1778	0.6585	0.05214
Early Fibroatheroma																										
Minimum	10851	0.03425	733	0.2492	2.579	468	0.01129	0.00009703	0.09921	324461	1.001	0.006331	0.00294	0.0003271	0.2087	0.002951	0.0003271	0.152	-2	0.1153	0.3694	2.001	0.003568	0.0004589	0.001294	0.6911
25% Percentile	40856	0.1077	2148	0.4243	4.627	1695	0.08509	0.001793	0.4044	1830728	1.316	2.744	0.9079	0.06566	0.6674	0.2319	0.06242	0.2953	-2	0.8606	0.5219	2.22	0.516	1.1373	4.496	0.8035
Median	93587	0.1658	2660	0.5272	5.085	2481	0.8217	0.07136	0.4613	3324004	2.252	40.08	5.394	0.1751	0.7769	0.4559	0.163	0.5326	-1.999	0.974	0.7157	2.737	1.027	4.887	1.754	0.9207
75% Percentile	130250	0.2343	3177	0.6464	5.546	3460	1.955	0.4771	0.4938	1019854	7.694	737.5	64.9	1.004	0.8578	0.9588	0.5064	0.7796	-1.999	0.9976	0.881	4.329	1.733	9.976	12.92	0.9602
Maximum	259538	0.747	6533	0.9901	6.473	18915	6.065	15.22	0.5	28839865	24.68	2102	177.3	3.695	0.9422	1.344	0.9562	0.9988	-1.993	0.9995	0.9994	8.034	2.256	10.23	37.54	0.9998
Range	240687	0.7127	5820	0.7408	3.894	18447	6.053	15.22	0.4008	28515404	23.68	2102	177.3	3.694	0.9735	1.341	0.9559	0.8468	0.006565	0.8842	0.6301	6.033	2.25	10.23	37.54	0.3088
Mean	105028	0.1971	2723	0.5418	5.019	3164	1.191	0.9603	0.4314	663196	5.133	414.5	34.49	0.5985	0.7422	0.5702	0.2849	0.5447	-1.999	0.8728	0.7028	3.388	1.39	1.99	7.359	0.8933
Std. Deviation	54304	0.1391	867	0.1635	0.762	3529	1.345	2.538	0.08844	6750332	5.578	606.5	46.57	0.7716	0.1456	0.3857	0.2672	0.2651	0.0009816	0.2194	0.1931	1.52	0.6922	2.667	9.972	0.08426
Std. Error of M	4691	0.01202	74.9	0.01412	0.06583	255.3	0.1162	0.2192	0.09764	581340	0.4819	52.4	4.023	0.06666	0.01258	0.03332	0.02308	0.0229	0.0000848	0.01896	0.01668	0.1313	0.0598	0.2304	0.8615	0.007279
Advancing Atherosclerosis																										
Minimum	6860	0.04719	452.6	0.2621	2.804	219	0.009462	0.00007191	0.1596	530190	1.001	0.001845	-5.726	0.0003482	0.2696	0.003119	0.0003482	0.17	-2	0.09917	0.326	2.001	0.004081	0.0002677	0.0007228	0.6983
25% Percentile	49412	0.1296	2264	0.4713	4.434	1810	0.02968	0.0001982	0.4258	3402725	2.339	73.39	8.861	0.2838	0.7486	0.5757	0.2226	0.2502	-1.999	0.9782	0.481	2.74	1.113	0.6324	2.22	0.7818
Median	108491	0.1763	2723	0.5662	4.848	2638	0.1062	0.002638	0.4607	7103603	5.549	611.3	57.45	0.8049	0.8121	0.8772	0.4392	0.3506	-1.999	0.996	0.5808	3.703	1.61	2.547	4.448	0.8325
75% Percentile	159963	0.2498	3222	0.6899	5.214	3342	0.5219	0.0378	0.4914	16711137	14.83	994.9	99.14	1.958	0.8531	1.121	0.7086	0.4966	-1.999	0.9986	0.695	5.532	1.939	6.64	24.53	0.897
Maximum	240973	0.4981	5011	0.9192	6.682	11965	4.129	12.29	0.5	3716323	30.43	2104	175.3	4.619	0.9304	1.405	1.174	0.9991	-1.99	0.9995	0.9996	9.083	2.223	10.96	41.52	0.9998
Range	234113	0.4509	4558	0.6571	3.878	11746	4.12	12.29	0.3404	33186133	29.43	2104	181	4.618	0.6609	1.402	1.174	0.8291	0.009584	0.9003	0.6736	7.082	2.219	10.96	41.52	0.3015
Mean	114808	0.1981	2763	0.5756	4.849	2823	0.4753	0.2141	0.1089534	8204	754	58.08	1.2	0.7828	0.82	0.4667	0.4154	0.4154	-1.999	0.9566	0.6092	4.235	1.453	3.55	13	0.8436
Std. Deviation	54558	0.09856	712.8	0.1439	0.6449	1549	0.7714	1.02	0.05879	8319020	6.979	692	48.85	1.079	0.1113	0.3536	0.2888	0.2087	0.0008453	0.1121	0.1627	1.761	0.5698	3.239	11.97	0.07618
Std. Error of M	3695	0.006675	48.28	0.009744	0.04368	104.9	0.05224	0.06097	0.007982	561496	0.4727	46.87	3.309	0.07307	0.007538	0.02395	0.01956	0.01413	0.00005725	0.007591	0.01102	0.1193	0.03859	0.2194	0.8107	0.00516
Independent From Cx1 Thresholding Segmentation																										
Early Fatty Streak Development																										
Minimum	7970	0.00352	66986	5.367	2.929	138	0.01209	0.0001014	0.10	74942	1	0.0002409	0.0001645	0.000088	-0.0001554	0.0009997	0.000088	0.1581	-2	0.04815	0.3636	2	0.00103	0.0000356	0.0001262	0.705
25% Percentile	12786	0.1371	2725	0.7525	4.497	547.8	0.0575	0.0009744	0.4314	1123630	61.79	9.451	0.2747	0.7032	0.5609	0.2168	0.2752	0.2953	-1.999	0.975	0.5064	2.726	1.065	2.361	0.7905	
Median	1910	0.1856	0.7717	11.47	5.175	807	0.2608	0.007087	0.4013	1053	2.339	73.39	8.861	0.2838	0.7486	0.5757	0.2226	0.2502	-1.999	0.996	0.5808	3.703	1.61	2.547	4.448	0.8325
75% Percentile	37001	0.2872	0.7975	18.18	5.675	1010	0.555	0.03533	0.42	4919904	8.778	997.8	82.92	1.492	0.8447	0.9419	0.6063	0.5235	-1.999	0.998	0.5996	4.633	1.846	4.414	16.34	0.8997
Maximum	108038	0.6612	0.902	37.63	6.887	5980	5.128	16.7	0.103	17697900	24.39	2166	170.1	3.88	0.9576	1.388	1.076	0.9998	-1.983	0.9995	0.9999	7.96	2.26	9.953	37.44	1
Range	109098	0.6589	0.2034	32.26	3.958	5842	5.116	16.7	1792	16272958	23.39	2166	170.1	3.88	0.9578	1.387	1.076	0.8417	0.01686	0.9514	0.6363	5.96	2.259	9.953	37.44	0.295
Mean	26669	0.1976	0.7774	14.97	5.128	836.9	0.5941	0.5889	120.8	3427299	6.306	558.1	47.96	0.9456	0.747	0.7771	0.4173	0.4315	-1.999	0.931	0.6246	3.808	1.396	2.656	9.677	0.8498
Std. Deviation	22765	0.067	0.03567	4.924	0.7577	305.7	0.977	2.334	138.6	3606752	6.424	602.4	45.73	0.8572	0.1571	0.3446	0.259	0.2195	0.001752	0.1926	0.1649	1.415	0.5855	2.589	9.588	0.07591
Std. Error of M	1563	0.76	0.00245	0.3382	0.05204	54.73	0.0671	0.1603	9.516	247713	0.3668	41.38	3.14	0.05887	0.01079	0.02667	0.01779	0.01508	0.0001203	0.01323	0.01133	0.09717	0.04021	0.1778	0.6585	0.05214
Advancing Atherosclerosis																										
Minimum	4687	0.00543	0.7122	1.29	2.579	156	0.01129	0.00009703	0.1306																	

SUPPLEMENTARY MATERIAL

à Descriptive statistics of FOS features, shape features and texture features

Supplemental Table 3 Overview of the non-normalized descriptive statistics of FOS features, shape features and texture features

Oste Segmentation																										
Early Fatty Streak Development																										
Mean	77500	0.08714	4452	0.4966	5.019	1	1.191	0.9603	0.4099	4772664	5.133	414.5	34.49	0.5985	0.7422	0.5702	0.2849	0.5447	-1.999	0.8728	0.7028	3.388	1.1	1.99	7.359	0.8933
Std. Deviation	41816	0.1041	2411	0.1504	0.762	0	1.345	2.538	0.1229	5132310	5.578	606.5	46.57	0.7716	0.1456	0.3857	0.2672	0.2651	0.0009816	0.2194	0.1931	1.52	0.6922	2.667	9.972	0.08426
Std. Error of M	3612	0.008989	208.3	0.01299	0.06583	0	0.1162	0.2192	0.01061	4433364	0.4819	52.4	4.023	0.06666	0.01258	0.03332	0.02308	0.0229	0.0000848	0.01896	0.01668	0.1313	0.0598	0.2304	0.8615	0.007279
Advancing Atheroma																										
Minimum	195	0.002834	85.56	0.1224	2.804	1	0.009462	0.000719	0.02726	18018	1.001	0.001845	-5.726	0.0003482	0.2696	0.003119	0.0003482	0.17	-2	0.09917	0.326	2.001	0.004081	0.0002677	0.0007228	0.6983
25% Percentile	26412	0.01456	2745	0.3421	4.434	1	0.02968	0.0003982	0.3051	1697173	2.339	73.39	8.861	0.2838	0.7486	0.5757	0.2226	0.2502	-1.999	0.9782	0.481	2.74	1.113	0.6324	2.22	0.7818
Median	68029	0.02402	5269	0.4333	4.848	1	0.1062	0.002638	0.4384	4434928	5.559	611.3	57.45	0.8049	0.8121	0.8772	0.4392	0.3506	-1.999	0.996	0.5808	3.703	1.61	2.547	9.448	0.8325
75% Percentile	94530	0.04631	7836	0.5186	5.214	1	0.5129	0.0378	0.4802	10534386	13.68	1483	99.14	1.958	0.8531	1.121	0.7086	0.4966	-1.999	0.9986	0.695	5.532	1.939	6.64	24.53	0.897
Maximum	156314	0.3709	14482	0.7483	6.682	1	4.129	12.29	0.5	32709084	30.43	2104	175.3	4.619	0.9304	1.405	1.174	0.9991	-1.99	0.9995	0.9996	9.083	2.223	10.96	41.52	0.9998
Range	156119	0.368	14397	0.6259	3.878	0	4.127	12.29	0.4727	32699666	29.43	2104	181	4.618	0.6609	1.402	1.174	0.8291	0.009584	0.9003	0.6736	7.082	2.219	10.96	41.52	0.3015
Mean	63554	0.04733	5467	0.4386	4.849	1	0.4753	0.2141	0.3754	7211275	8.204	754	58.08	1.2	0.7828	0.82	0.4667	0.4154	-1.999	0.9566	0.6092	4.235	1.453	3.55	13	0.8436
Std. Deviation	40248	0.06346	3185	0.1282	0.6449	0	0.7714	1.92	0.1405	7248439	6.979	692	48.85	1.079	0.1113	0.3536	0.2888	0.2087	0.0008453	0.1121	0.1627	1.761	0.5698	3.239	11.97	0.07618
Std. Error of M	2726	0.004298	215.7	0.008683	0.04368	0	0.05224	0.06907	0.009518	490926	0.4727	46.87	3.309	0.07307	0.007538	0.02395	0.01956	0.01413	0.00005725	0.007591	0.01102	0.1193	0.03859	0.2194	0.8107	0.00516