Figure S1. Proinflammatory stimuli induce the secretion of IL-6 in glioma cells. Statistical analyses of the secretion of IL-6 in (A) U87-MG cells (n=3) and (B) U118-MG cells (n=4) at different time points after LPS and IFN-γ stimulation. *P<0.05; **P<0.01; ***P<0.001 vs. 0 h.
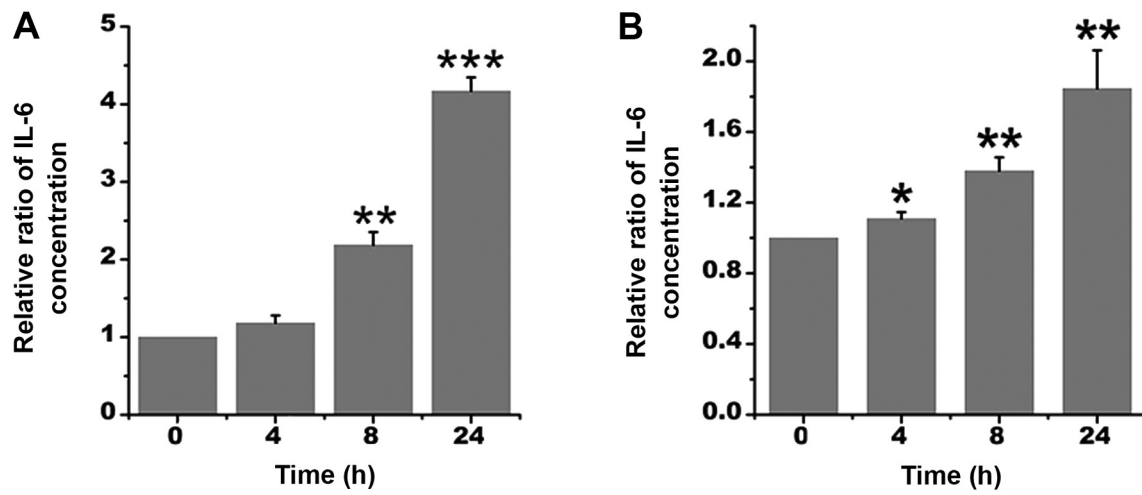
Figure S2. Proinflammatory stimuli induce mitochondrial network remodeling in glioma cells. (A) Representative images of mitochondria in U118-MG cells at (a) 0, (b) 4, (c) 8 and (d) 24 h after LPS+IFN-γ stimulation. Mitotracker Red served as the mitochondrial probe. Statistical analyses of the ratios of U118-MG cells with (e) fragmented mitochondria (n=4; 50-150 cells per time point) and (f) enlarged mitochondria (n=4; 50-150 cells per time point). (g) Representative transmission electron microscopy images of mitochondria in U118-MG cells after LPS and IFN-γ treatment (scale bar, 2 μm). The boxed area was enlarged in (h). Scale bar, 500 nm. (B) ΔΨm of U118-MG was analyzed via flow cytometry. The histogram shows the statistical analysis of the ΔΨm after LPS and IFN-γ treatment (n=3). The statistical significance was evaluated via one-way ANOVA followed by Tukey's post hoc test. *P<0.05; **P<0.01; ***P<0.001. LPS, lipopolysaccharide; ΔΨm, mitochondrial membrane potential, fluor, fluorescence.
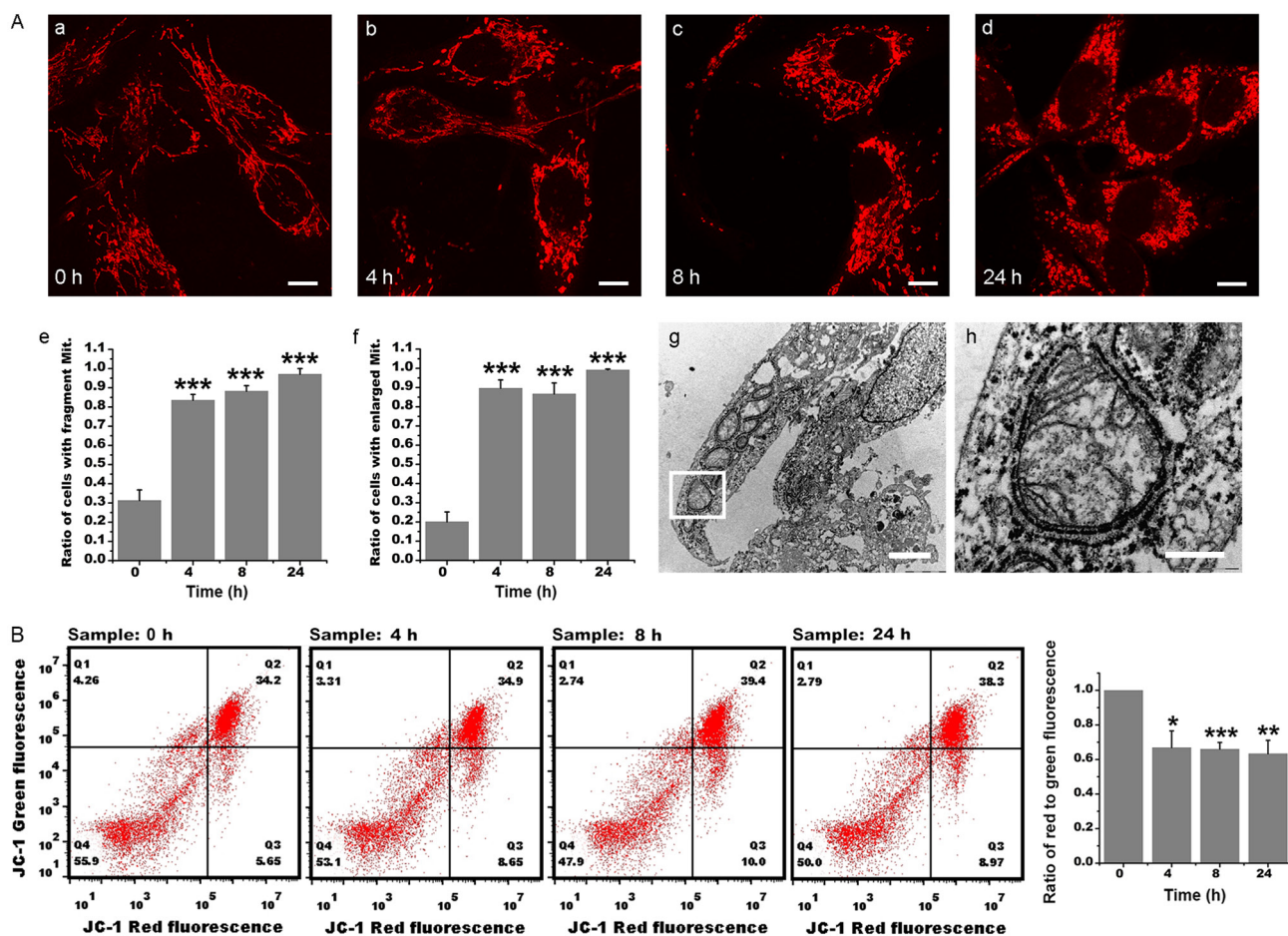
Figure S3. There was no oxidative damage of the mitochondrial membrane after the stimulation with LPS and IFN-γ in U118-MG cells. Mitotracker Red was used to label the mitochondria, and HNE was used to label the lipid peroxidation. Scale bar, 10 μm. LPS, lipopolysaccharide; HNE, 4-hydroxynonenal.
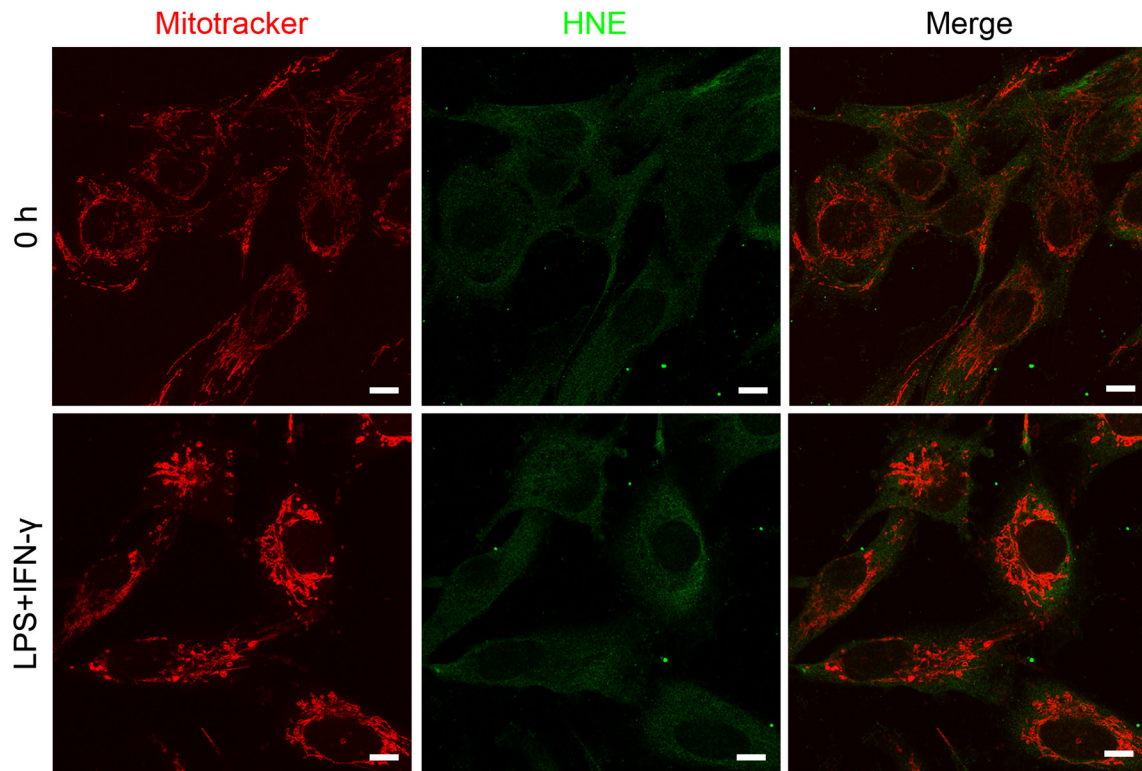
Figure S4. Dysfunctional mitochondria are not cleared via mitophagy. (A) U87-MG cells were transfected with the GFP-LC3 plasmid and then treated with LPS and IFN-γ. Scale bar, 10 μm. (B) Immunocytochemistry of the lysosomes using the lysosome marker LAMP1 in U87-MG cells before (0 h) and after LPS and IFN-γ treatment. Scale bar, 5 μm. LPS, lipopolysaccharide; LAMP1, lysosomal associated membrane protein 1.
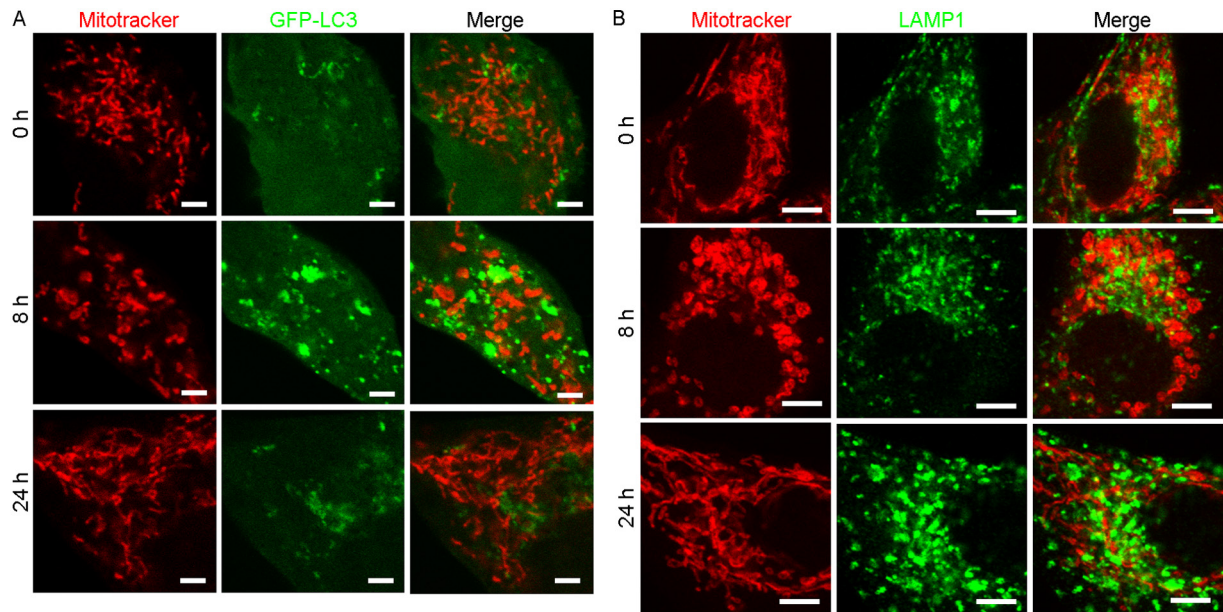
Table SI. Demographic parameters of patients with glioma.

Patient number	Histology	Grade	Sex	Age, years
1	Astrocytoma	II	M	56
2	Astrocytoma	II	F	38
3	Astrocytoma	II	F	40
4	Astrocytoma	II	F	45
5	Astrocytoma	II	M	43
6	Astrocytoma	II	F	52
7	Astrocytoma	II	M	57
8	Oligoastrocytoma	II	F	42
9	Oligoastrocytoma	II	F	52
10	Anaplastic astrocytoma	III	F	39
11	Anaplastic astrocytoma	III	M	74
12	Anaplastic astrocytoma	III	M	39
13	Anaplastic astrocytoma	III	F	64
14	Anaplastic astrocytoma	III	F	59
15	Anaplastic astrocytoma	III	M	47
16	Anaplastic astrocytoma	III	F	64
17	Anaplastic astrocytoma	III	M	47
18	Anaplastic oligoastrocytoma	III	M	57
19	Anaplastic oligodendroglioma	III	F	59
20	Glioblastoma	IV	M	36
21	Glioblastoma	IV	F	57
22	Glioblastoma	IV	M	42
23	Glioblastoma	IV	M	50
24	Glioblastoma	IV	M	49
25	Glioblastoma	IV	M	66

M, male; F, female.