Rome's rise to power as deduced by analysis of silver coinage

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We analysed drilling chips of Roman silver coins (n=55) dating between c. 225 and 101 BCE for their major and trace element composition and Pb isotope signatures by EPMA, LA-ICP-MS and MC-ICP-MS, respectively. Unlike earlier Roman silver coinage, whose Pb isotope data overlap with those of coins from Magna Graecia being in agreement with Ag ores from the Aegean (Attica, Chalkidiki) and Rhodope region (Birch et al., in prep.), the Pb isotope signatures of the majority of coins minted after 209 BCE show a different trend. These form a mixing line extending between the Tertiary mineralisations of southeastern Spain and the Variscan deposits in the southwestern part of the Iberian Peninsula. Carthaginian silver coinage (n=2) from the 4th century BCE as well shows Pb isotope data being indicative of mixed metal sources from the Iberian Peninsula. The Brettii, a tribe in southern Italy, were allies of Carthage in the 2nd Punic War (218-201 BCE) and thus apparently also had access to silver originally won from Iberian resources, as reflected by Pb isotope signatures of their coinage (n=3; dating between c. 218 and 211 BCE). Silver fineness of the Roman coinage dating after 209 BCE in contrast to earlier minted coins generally is in excess of 96 wt % and further strengthens the hypothesis of a secured supply of metal bullion deriving from former Carthaginian riches.

Overall, our results suggest that the massive influx of silver in the form of booty or repairation payments during and after the 2nd Punic War, respectively, significantly contributed to Rome's rise to the dominating power in the Mediterranean World.