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Percutaneous coronary intervention for coronary bifurcation lesion tends to be complex, resulting in increased contrast volume usage. Contrast induced nephropathy is an important complication following exposure to iodinated contrast. Therefore, minimum contrast procedures are ideal for complex PCI of a patient with chronic kidney disease. A jailed wire technique is known to reduce the risk of side branch occlusion. This method provides for a decrease in usage of contrast without leaving the side branch at risk of ischemia. It is cumbersome to know if there is ischemia in the jailed side branch after the treatment of a coronary bifurcation lesion with a stent deployed in the main vessel. We report a case measuring the presence of ischemia in the side branch by a jailed Opto Wire (Opsens, Quebec) after implantation of a stent in the main vessel for the treatment of a bifurcation lesion. The new Opto Wire has an improved hydrophilic coating and theoretically has less drift by using optical fibers. These features of this new wire might be ideal for jailed pressure wire technique. This minimum contrast procedure was safely performed in a complex bifurcation lesion using the jailed wire technique in a patient with chronic kidney disease. A 56-year-old male was admitted to our hospital complaining of chest pain. The patient had chronic kidney disease. We undertook a minimum contrast procedure in a complex bifurcation lesion by using this method. We report our case, along with the relevant literature.